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THE AMERICAN School Board Journal

A Periodical of School Administration

MARCH · 1932

THE BRUCE PUBLISHING COMPANY
NEW YORK MILWAUKEE CHICAGO

BIG THINGS can be accomplished with LIMITED school budgets

Note how the Wilmette Public Schools maintain modern equipment . . . and do it economically

● Mr. J. Robb Harper is superintendent of the Wilmette, Illinois, Public School System — comprising 4 schools with a total of 52 classrooms.

Mr. Harper, with a full realization that his schools, to keep step with teaching progress must provide *modern, efficient* equipment, has established an annual improvement program that has been highly successful

Mr. Harper says:

"My budget has always carried an item for New Developments, so that the Wilmette Public Schools can maintain their high standards in offering modern schooling with modern equipment. With a full realization that good health is vital to the pupils' progress we have almost without variation applied 50% of our New Developments appropriation to a program of reseating. Thus each year a number of rooms are brought up to the most efficient seating standards with American Universal Movable Desks. So that each year some of our classrooms are made new, and the penalties of obsolete seating are eliminated. For a relatively small annual expenditure in comparison to the total cost of education, we are enabled to give our students seating that is posturally correct and a definite aid to their health and efficiency."

To meet diminishing income, where *new school building* may not be possible, your school can be renewed economically and brought up to standard by conservative investment in reseating.

American Seating Company

Makers of Dependable Seating for Schools, Churches and Public Auditoriums

General Offices: GRAND RAPIDS, MICHIGAN

Branches in All Principal Cities

For Your Reseating Program —Investigate American Universal Desks — Now!

When you reseat your classrooms — one room or every room — be sure you obtain the greatest VALUE for your appropriation. Install seating that is recognized for its contribution to pupil health and efficiency as well as a quality product from every viewpoint of the workmanship and materials employed in its construction.

The American Universal Desk is scientifically designed to induce good posture — to make erect sitting natural and comfortable — to prevent slumping which crowds vital organs. It has features that definitely assist in sight conservation — and other important improvements for the physical and mental welfare of the student. Years of experience and scientific research are behind it. The detailed facts are yours for the asking.

Free Classroom Posture Poster and *Authoritative Seating Booklets* (They contain no advertising)

Send the coupon ... and we will mail you free a three-color posture poster, size 17½ by 25 inches which shows children why they should sit *erect.* Teachers, principals or superintendents will be supplied with a poster for each classroom on request. With them, too, any of the following authoritative, instructive and interesting booklets: *"Essentials of Hygienic Seating",* which shows what constitutes good and bad posture, the relation of seating to posture, adjustment of seats, desks, and lighting and seating arrangements . . . *"Ideals and Standards of Classroom Seating",* covering the essentials of good seating and the grade distribution of school desk sizes . . . *"The Relation of Posture to Tuberculosis"* . . . *The Buying of School Equipment"* . . . and *"Forty Years of School Seating."* Please use the coupon indicating the booklets you wish.

AMERICAN SEATING COMPANY (A. S. B. 3)
GRAND RAPIDS, MICHIGAN:

Please send me, FREE, a copy of your Posture Poster. Also free copies of the Booklets checked.

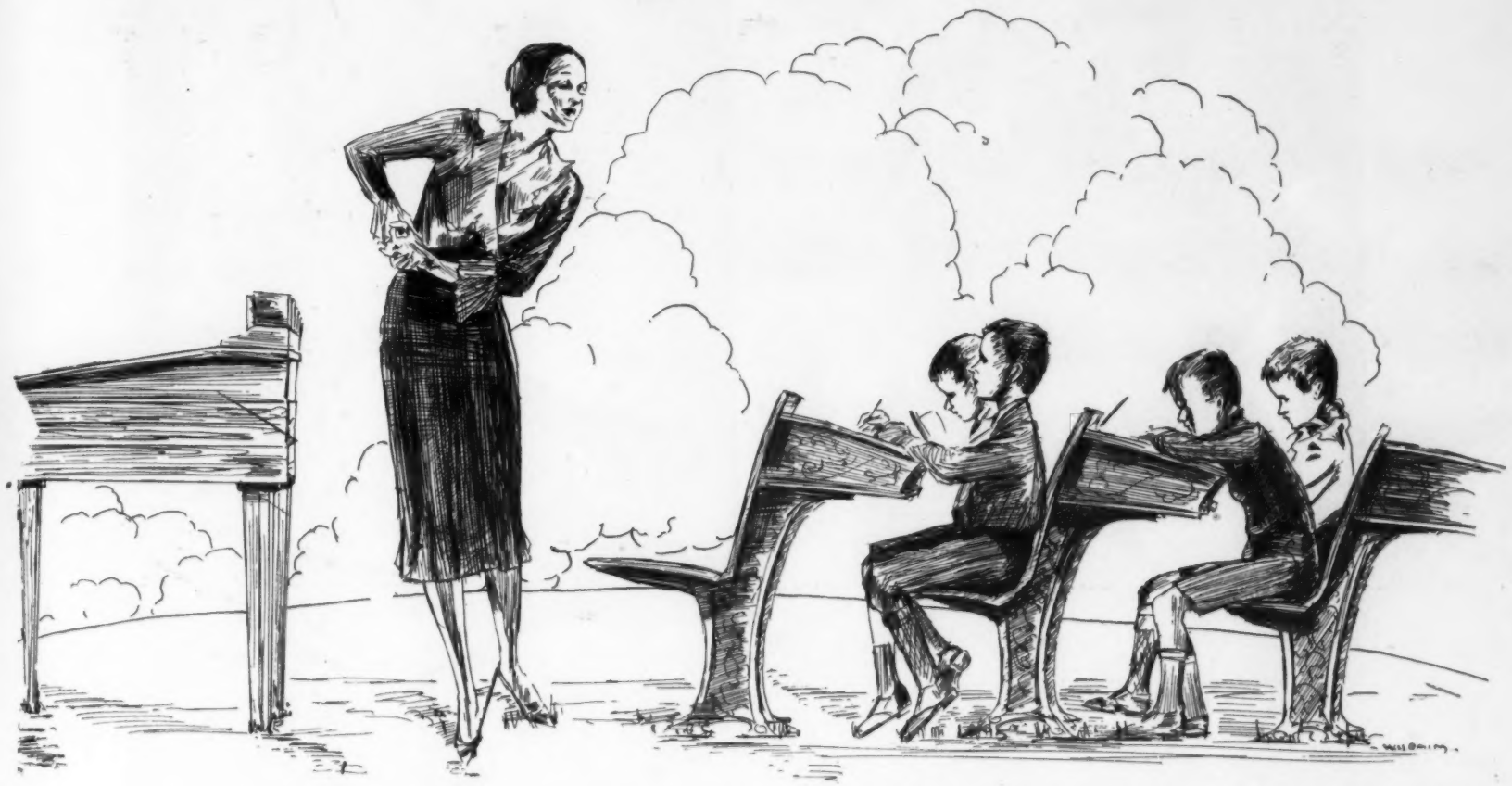
Name .....

Address .....

Position ..... ( ) Number of classrooms
(Indicate here whether you are Superintendent, Principal or Teacher)

☐ Essentials of Hygienic Seating ☐ The Relation of Posture to Tuberculosis
☐ Ideals and Standards of Classroom Seating
☐ The Buying of School Equipment ☐ Forty Years of School Seating

If your Classes were out in the open . . .



It Pays to buy a Genuine

Until quite recently little thought has ever been given to a solution for the elimination of unnecessary dust in classrooms. It would be wonderful if classes could be held out in the open where student and teacher alike might enjoy clean fresh air. . . . It is quite unnecessary, however, that occupants of classrooms should be subjected to flying chalk dust from blackboards. If a blackboard is cleaned thoroughly with water at least once a week, it will do away with germ-laden air that fills a room when blackboards are "dry cleaned". . . . By the term "dry cleaned" we mean dusting a blackboard off with a dry rag. Any blackboard accumulates chalk dust and dirt, which if "dusted off" is detrimental to the health and comfort of student and teacher alike, as the flying particles are breathed by all occupants of the room. The injurious effects upon the lungs can readily be imagined and yet this hazard to health may easily be eliminated by following the proper method of keeping boards clean. . . . As water is the simple and ideal cleanser and allayer of dust, only such material as will not be affected by applied moisture should be used for blackboard purposes. The proper method of cleaning may be practised without harmful results when Natural Slate is the material decided upon for blackboards. The method that has been adopted by leading schools and universities throughout the country is to wash the blackboard at least once a week with clean fresh water and dry it immediately with a rubber squeegee. . . . This method will free the board not only of chalk sediment, but of dust and germs, and keep the natural writing surface in an ideal condition. . . . Because slate is a natural rock and not a thin black veneer on a surface that will warp, the constant application of water will not affect it. Your school deserves a natural product and Natural Slate Blackboards should be used. . . .

NATURAL SLATE BLACKBOARD COMPANY

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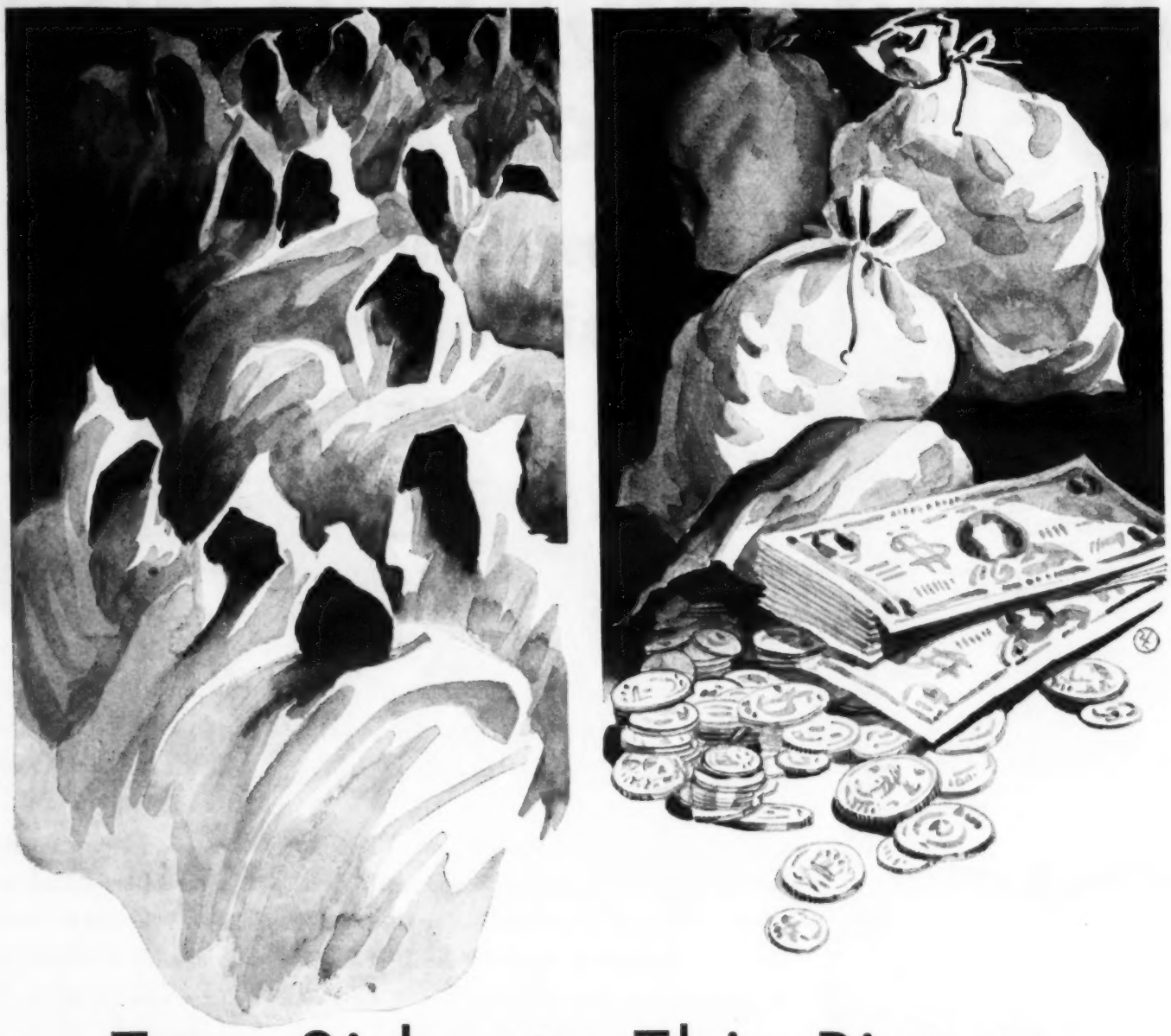
CENTURIES OF SERVICE
PYRAMID NATURAL SLATE BLACKBOARDS

They Outlast the Building

WASH YOUR SLATE BLACKBOARDS WITH WATER



Two Sides to This Picture

The purpose of the plumbing in any public or semi-public building is to promote sanitation—to drive out and keep out the grim ghosts that like to lurk in toilet rooms and haunt every plumbing fixture.

To defeat them, now and for the years to come, is the first job of the Clow Soldier of Sanitation, and has been for more than fifty years.

During this long time, he has developed the most complete line of specialized plumbing in the world, designed particularly to meet every need of schools, hospitals, industrial plants and similar public or semi-public buildings.

This is Ed. McCanna, Chicago Office

The other side of this picture deals with dollars. Especially now economy is important in building, remodeling, repair and replacement jobs . . . Fifty years of experience, plus the most complete line of its kind in the world, help the Clow Soldier of Sanitation to give you exactly what you need—at the lowest possible original cost.

But more than that: those same fifty years of specialized experience put into every Clow Fixture and Fitting, the "stuff" which stands up unfailingly under the most severe and careless usage, defeating for many, many long years to come, exorbitant repair and replacement costs.

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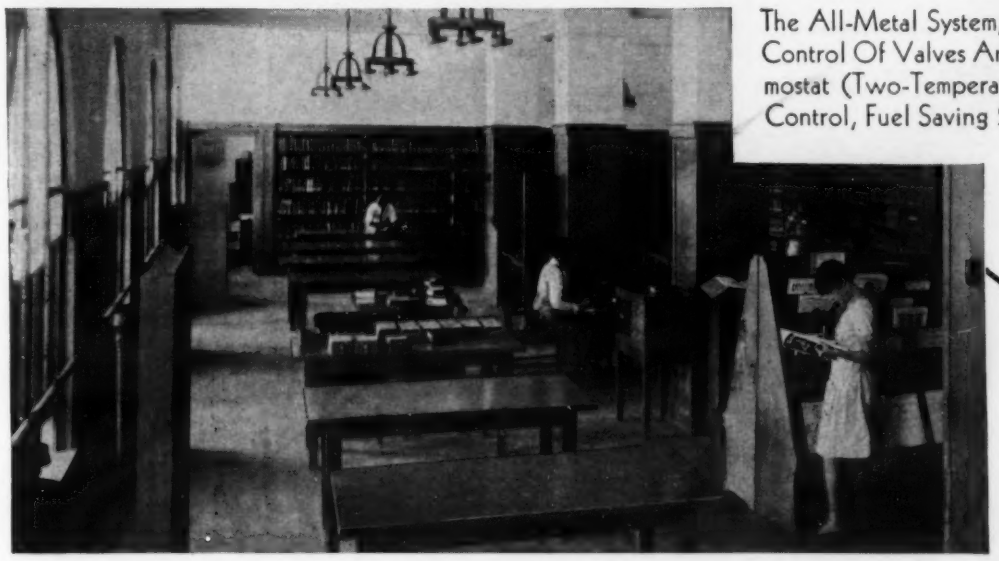
Consult Your Architect

JOHNSON Heat and Humidity Control



The All-Metal System, The All-Perfect Graduated Control Of Valves And Damper. The Dual Thermostat (Two-Temperature) or (Night And Day) Control, Fuel Saving 25 to 40 per cent.

WHEN HEAT AND HUMIDITY ARE CONTROLLED CORRECTLY

ACCURACY, DEPENDABILITY AND PERMANENCE MUST BE FOUNDED ON BASIC FUNDAMENTALS . . . .

The Johnson System Of Heat And Humidity Control is the only right method, the one complete system of control. There can be no successful substitute unless equal to Johnson Control . . . in principle, design and construction. Forty-seven years of heat and humidity control experience and experimenting are behind Johnson Control development and first position in the field. Accuracy, dependability and permanence are definitely assured in the Johnson System . . . after installation is made, and when most vital.

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507 E. MICHIGAN ST. Established 1885 MILWAUKEE, WIS.

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Boston	Denver	Los Angeles	St. Louis	Winnipeg, Man.
Buffalo	Des Moines	Minneapolis	Salt Lake City	Toronto, Ont.
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For example, The Johnson Dual Thermostat System controls the ventilation and the direct radiation throughout the Woodrow Wilson Junior High School, Terre Haute, Indiana. Johnson Dual Thermostats on the wall of each room automatically maintain a constant normal temperature during the time the rooms are in use, and a lower (or economy) temperature when the rooms are not in use: automatically turning the steam on or off at pre-determined hours, as the different rooms are to be occupied or vacated.

The control is divided into three units: one for the class-rooms, one for the gymnasium, and one for the auditorium. Each unit operates separately, and independently of the others, and according to the individual requirement of class-room hours, the gymnasium periods, and the auditorium use. It is not necessary to heat all of the building during the day or night, for the desired comfort in the rooms occupied and at a loss in the rooms not used or only occasionally occupied.

And it is not necessary to go from room to room to turn the steam on and off each morning and each night. The Johnson Dual Thermostats do that—reliably, consistently, and at a saving of manual attention and fuel consumption, the latter alone amounting to 25 to 40 per cent per year.

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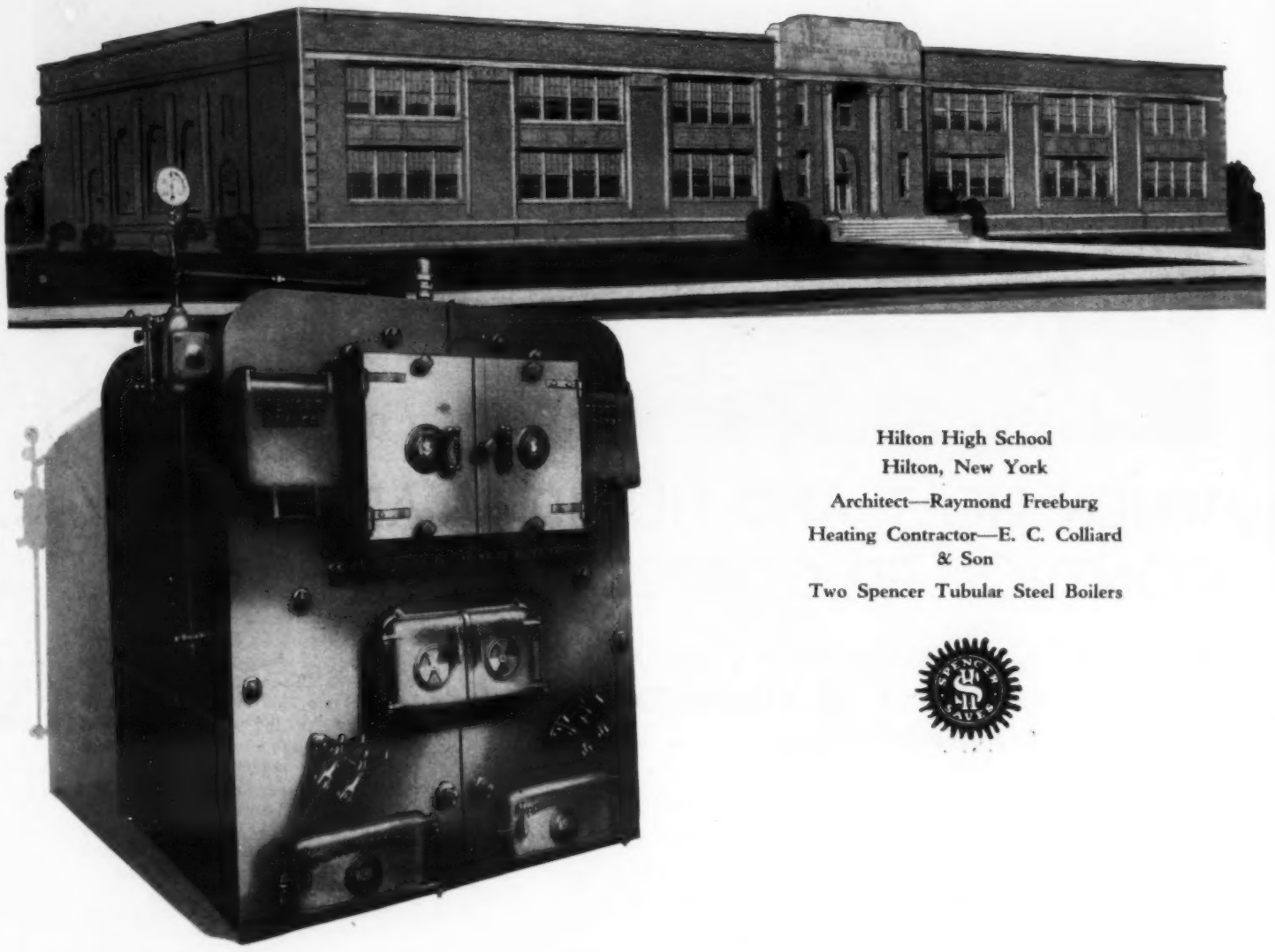
30 Johnson Branches Insure Convenient, Quick Service Anywhere, Any Time. Each Johnson Installation Made By Johnson Mechanics Only. Every Johnson Installation Given Annual Inspection.

A Dollar *Lost* in the *Boiler Room* Is as *Big* as One *Saved* Elsewhere



Hilton High School
Hilton, New York
Architect—Raymond Freeburg
Heating Contractor—E. C. Colliard & Son
Two Spencer Tubular Steel Boilers

School Boards, like all other organizations and individuals, are seeking ways to cut costs and save money. Unfortunately, much of this money so carefully saved, is NEEDLESSLY WASTED in the boiler room, due to antiquated heating systems; incorrect firing; expensive fuels, and wrong type of boiler. There is a way to stop this waste. Actual experience in many hundreds of schools proves that Spencer Automatic Heat is The Lowest Cost Heat You Can Buy — as well as the most efficient. Write for a copy of free book on school heating.

SPENCER HEATER COMPANY WILLIAMSPORT, PENNSYLVANIA

Division of Cord Corporation

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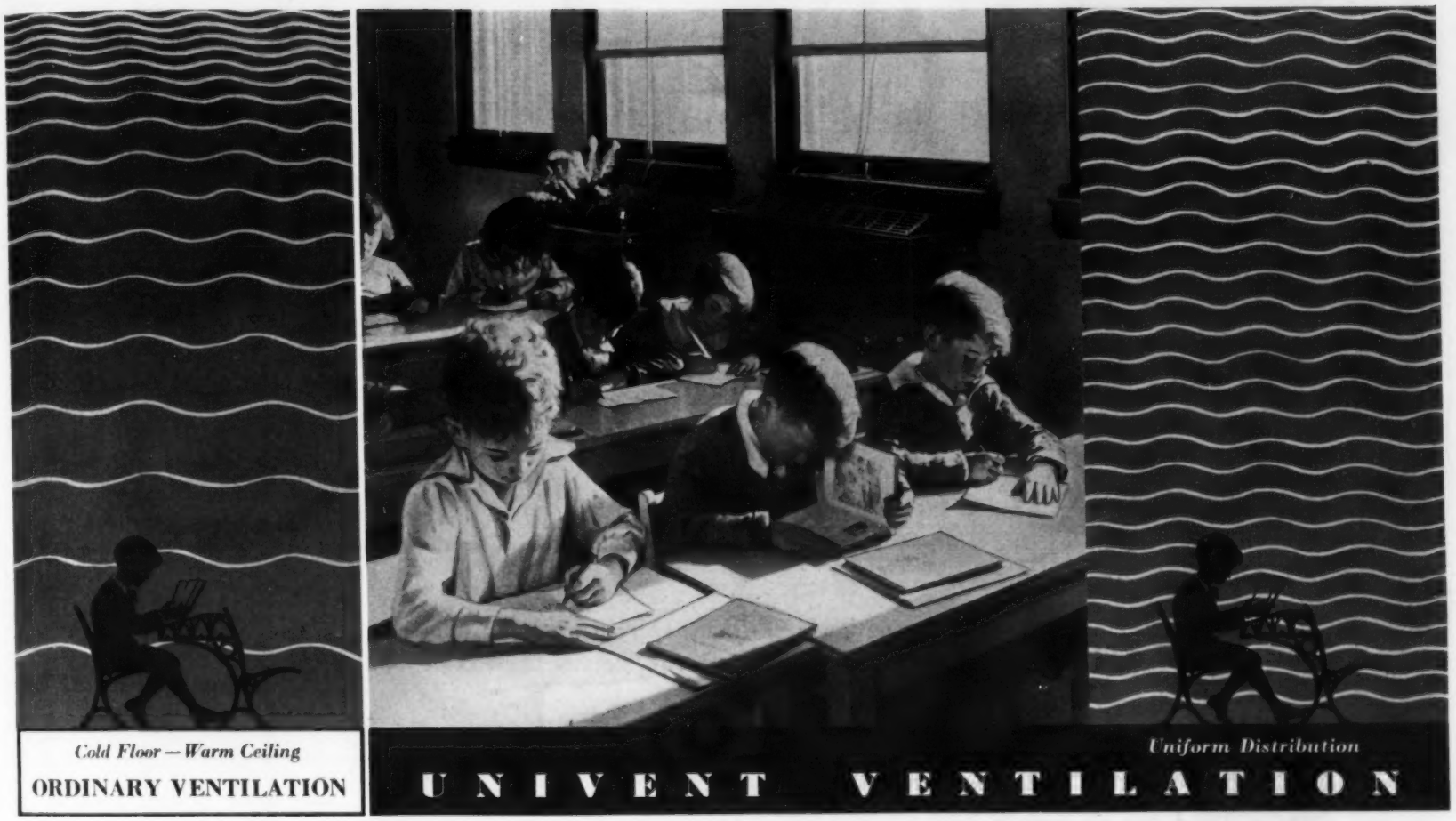
Magazine Feed
BOILERS
for steam, vapor or hot water

Which kind of ventilation for your school?



School authorities are coming more and more to realize that a continuous supply of outdoor air does not, of itself, constitute good schoolroom ventilation. Unless the air is properly cleaned, properly heated and properly diffused, comfortable and healthful atmospheric conditions cannot be maintained.

The Univent not only draws air from out of doors, cleans it, and warms it to the correct temperature, but distributes it in a scientific manner that assures warmth and comfort for every pupil in the room.

Unlike ordinary ventilating systems, the Univent is an effective *warm air diffuser*. Due to its high velocity vertical jet discharge, the warm air strikes the ceiling, spreads outward over the entire room, and is deflected downward, reaching every nook and corner, mixing thoroughly, and breaking up all "air pockets."

Thus, with Univent ventilation, there are no overheated ceilings to waste fuel—no chilly floors to jeopardize pupils' comfort and health. There is constant gentle air motion but *no drafts*.

Leading school architects, engineers, and school board members know that the selection of Univent ventilation is a true service to their community. Write for a free copy of the book, "Univent Ventilation."

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This Is True Thrift

Thrift, common-sense buying, is built around value, not price.

The genuine Type "B" Von Duprin naturally *costs* more than an ordinary exit device, because it *is* more than an ordinary device.

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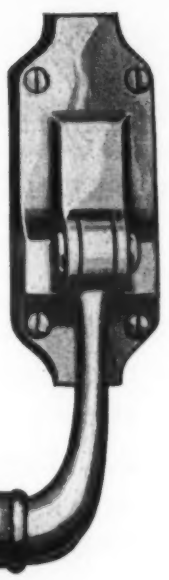
The genuine Type "B" Von Duprin is made as well as is humanly possible—the price is determined later.

The result is the world's finest self-releasing fire and panic exit device. To get top quality, ask your architect



to specify the genuine Type "B" Von Duprin, as an item separate from the finishing hardware. *Thus you foster clean competition, since all reputable dealers can buy them at the same fair prices.*

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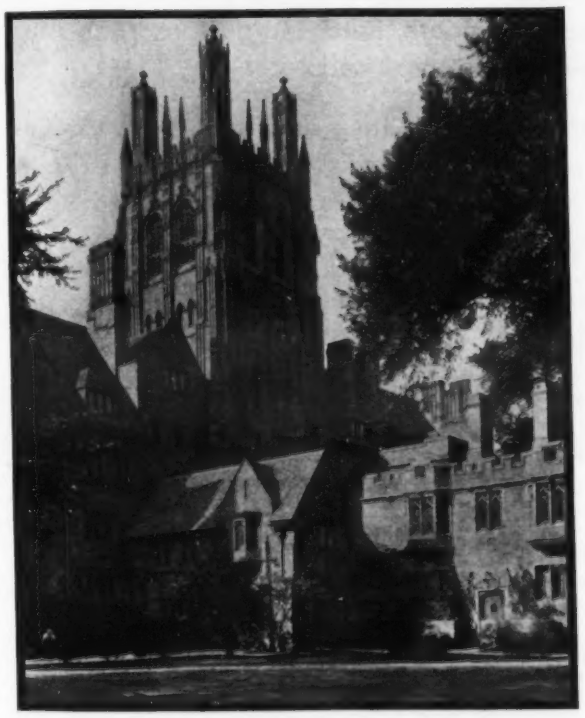

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Wrexham Tower, Harkness Quadrangle, Yale University, is equipped with American Air Filters for the protection of its students and furnishings. James Gamble Rogers, New York, Architect; Hollis French & Allen Hubbard, Boston, Engineers.

HERE, at last, is a booklet that discusses the subject of Air Filtration in comprehensive form.

You will find it of great interest because it explains the need for filtered air and shows its advantages from the standpoints of Health and Economy, accompanying that explanation with concrete proof and numerous examples—all graphically illustrated with charts and photographs.

When you plan a school you plot the lives of unseen throngs of children. Their Health is as important as their education and their education is to a great extent dependent on their attendance records.

American Air Filters are protecting students against epidemics, reducing absenteeism, increasing mental efficiency, cutting cleaning and redecorating costs in hundreds of schools and colleges. We believe you will find the booklet helpful in solving your school planning problems—in showing members of your board the actual menace of dirt and soot. A copy of *"Filtered Air"* is yours for the asking. Just use attached coupon.

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IF YOUR PROPERTY IS WORTH OWNING,
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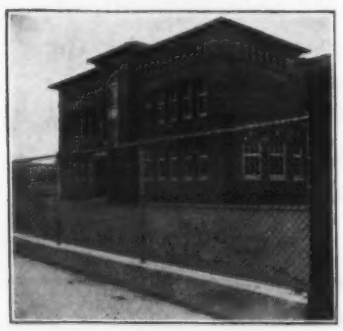
His Life was Lost *while the Board was in Session*

A siren shriek. The School Board rushed to the window. An ambulance was bearing away a limp form—of a boy who had run into the traffic after his ball. "Gentlemen," the President said quietly, "there is no need of voting. We will begin fencing our school and playgrounds tomorrow."

Today's heavy, fast-moving traffic has made it increasingly difficult to keep children safe. This is attested to by an alarming increase in fatalities and accidents occurring around schools.

No price is too high to stop this needless sacrifice of young lives! Fortunately, there is a simple, effective method so reasonable in cost that any school fund can afford it—a method that is in use in thousands of communities today . . . good fence.

Good, unclimbable fence keeps children out of traffic—traffic away from the children. Moreover, it allows closer supervision of play and attendance than is possible in any other way. It minimizes outside influences—and, of special interest to private and parochial schools, *increases privacy*.



When it's Cyclone Safeguard Fence that is specified by the Board, an economical, enduring installation is assured—for it is done by a local Cyclone organization backed by nation-wide experience with such fencing problems. Being made of copper-steel, Cyclone Fence will deliver its benefits years and years longer. An estimate gladly given. Write.

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LAPIDOLITH is a liquid chemical treatment that penetrates deeply into porous cement and binds the loose particles into a close grained mass, granite hard.

It goes on like water and hardens overnight. It then becomes a very practical form of floor insurance which you can have at trifling cost.

There are probably many floors in your own community that were treated with Lapidolith years ago. After much abuse they are still smooth, hard and dustproof. See them and you will be entirely convinced.

The application of Lapidolith is quite simple and your own janitor can do the job very satisfactorily. If, however, you prefer to use the trained Sonneborn service organization you can do so at very reasonable cost.

Let us send you the Lapidolith Book. It will give you complete information.

Note these famous Sonneborn savers of school buildings and maintenance expense. The coupon below will bring you detailed information

LAPIDOLITH
—A chemical liquid hardener for preserving and dustproofing concrete floors.

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CEMENT FILLER AND DUST PROOFER
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At Your Service!

This directory offers a definite service to the schoolman engaged in the planning of new school buildings or the renovation of old ones.

The architects listed here are experts in the planning and construction of school buildings. Years of experience and careful study have qualified them for the rôle of trusted advisors and consultants. Their service has been thoroughly investigated and the acceptance of their advertising in THE AMERICAN SCHOOL BOARD JOURNAL takes the form of an official stamp of approval on their qualifications as school-building specialists.

When planning a new school building or addition, USE THIS DIRECTORY as your guide in selecting the service of an expert who is thoroughly acquainted with the multiple problems involved in the planning and construction of a modern school plant.

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ARCHITECT
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New York Office-Suite 1432-33 W. 42nd St.

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Newark, New Jersey

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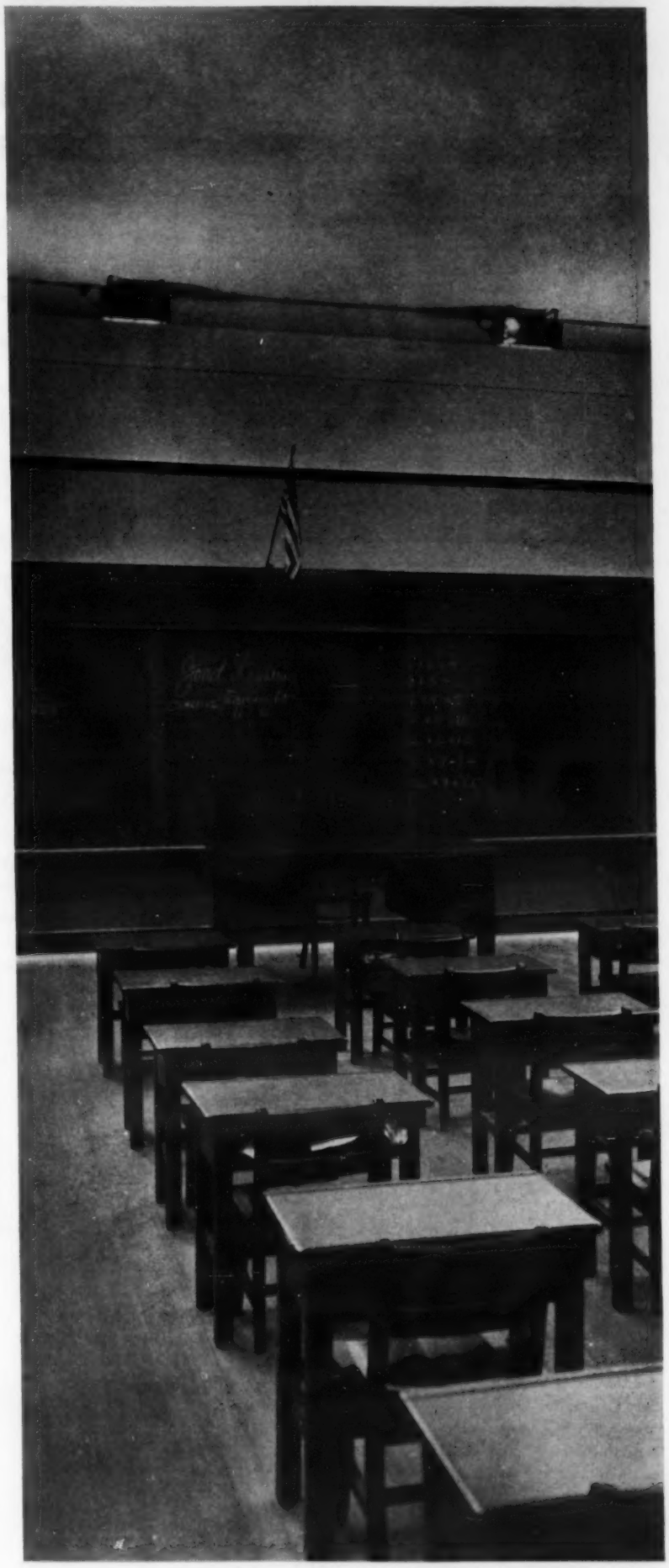
eliminates all glare and reflections, and makes the blackboard message easily visible from every part of the classroom. . . . . .

THE remarkable lighting unit which makes this possible is specifically designed for blackboards, bulletin boards and maps. All the rays from the lamps in the unit are gathered into the lenses and tilted to the blackboard in a flat, wide sheet of light. The units are so placed in relation to the blackboard, and the rays are so sharply controlled, that all reflections are sent to the floor, and the entire area of the shiniest blackboard becomes clearly visible from the farthest seat, and from the sharpest angles as well. There are no "blind spots" whatsoever in the blackboard lighted by Holophane. A typical installation is shown in the illustration.

Let Holophane engineers help you to obtain the greatest educational values from your blackboard lighting, and from *all* other school lighting as well. — Address Holophane Co., Inc., 342 Madison Ave., New York. Offices also in San Francisco and Toronto.



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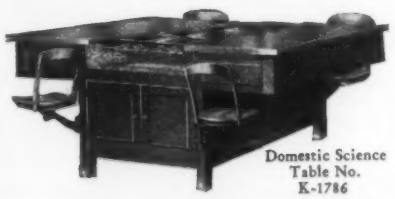

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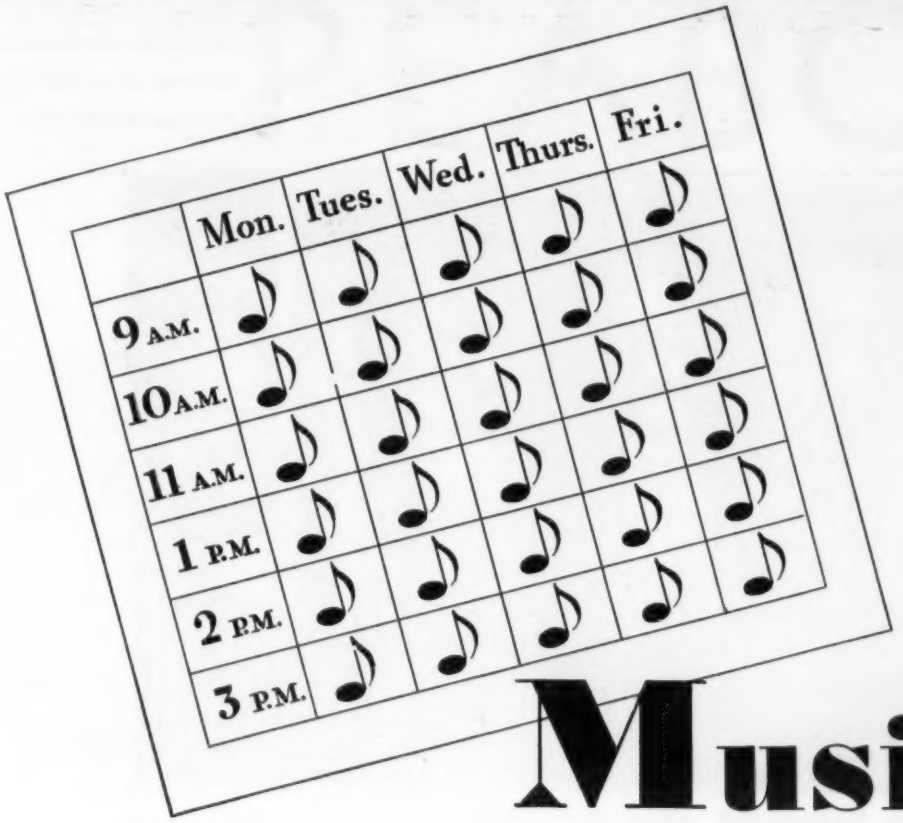

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WRITE . . . **Send for the catalog illustrating many types of wardrobes, and call upon an R-W doorway engineer at any time for a consultation upon your doorway problem.**

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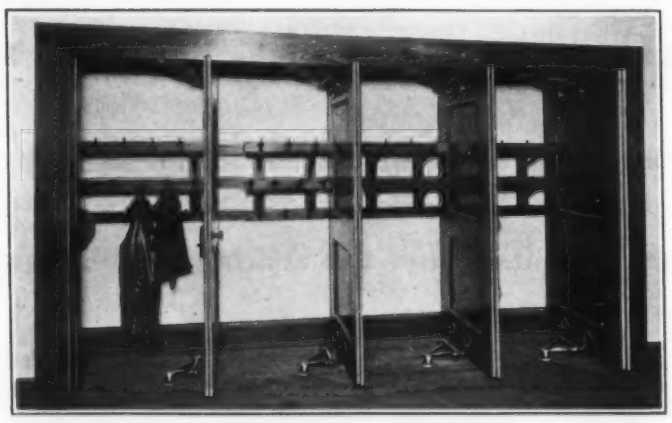

Illustrated above: Unit type wardrobe built in series for pupils and teacher to meet any requirement.

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SCHOOL SEATING

No. 206

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ESTABLISHED 1903

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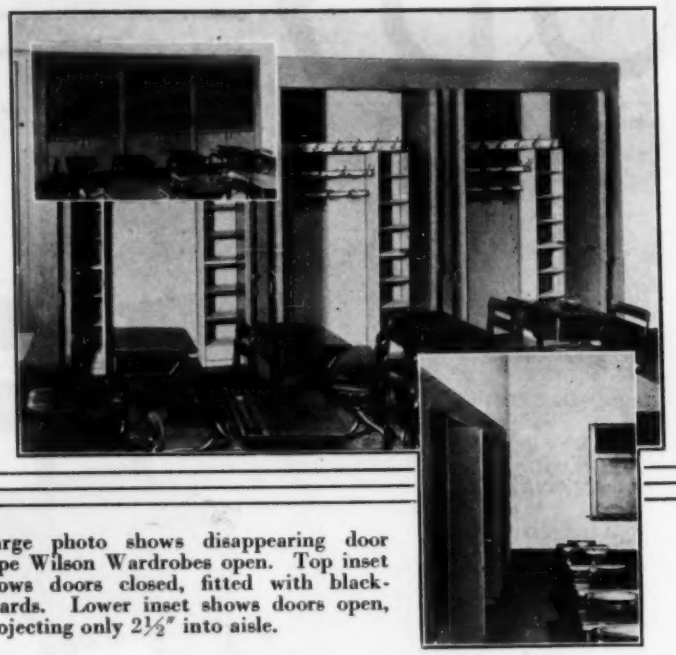

Large photo shows disappearing door type Wilson Wardrobes open. Top inset shows doors closed, fitted with blackboards. Lower inset shows doors open, projecting only 2½" into aisle.

Features of Wilson School Wardrobes That Save Space and Money—

Pictures show installation of Wilson Hygienic School Wardrobes (disappearing door type) in South Norfolk High School, South Norfolk, Va., W. O. Sherman, Architect, J. W. Hudson Jr., Contractor.

These wardrobes eliminate space and cost of cloak rooms. May be installed in corridors or rooms. Fronts operate easily and out of the way, whether open or closed, in both the disappearing door type and the rolling front type. Provided with blackboard surface if desired. Wilson Hygienic School Wardrobes permit smaller school buildings without loss of seating capacity, thereby lowering construction costs.

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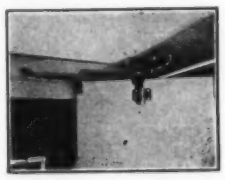

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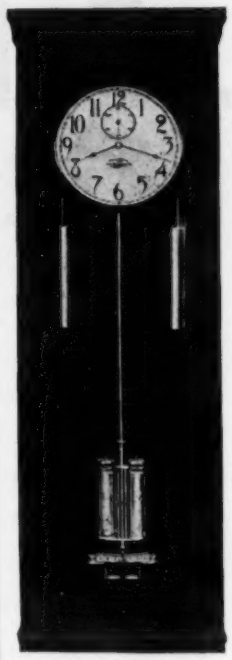

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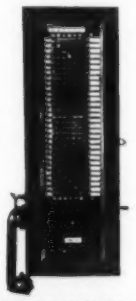

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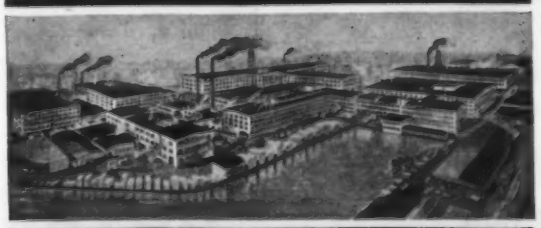

No. 131

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. . . SCHOOL EQUIPMENT PURCHASES REQUIRE DISCRIMINATING ECONOMY

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Because Imperial Teachers' Desks are built for long-life utility—for lasting service—

And because they are priced to meet the limitations of today's school budgets.

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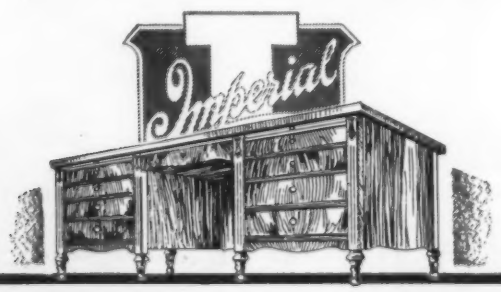

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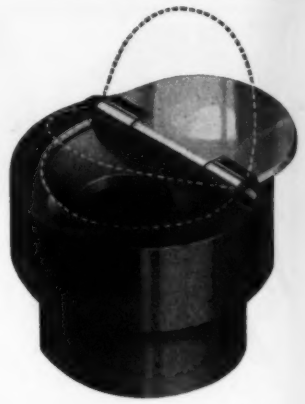

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No glass bottle to break

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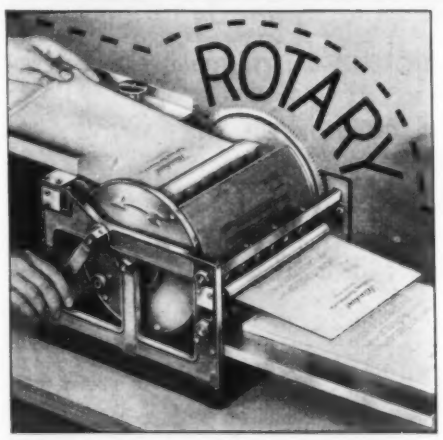

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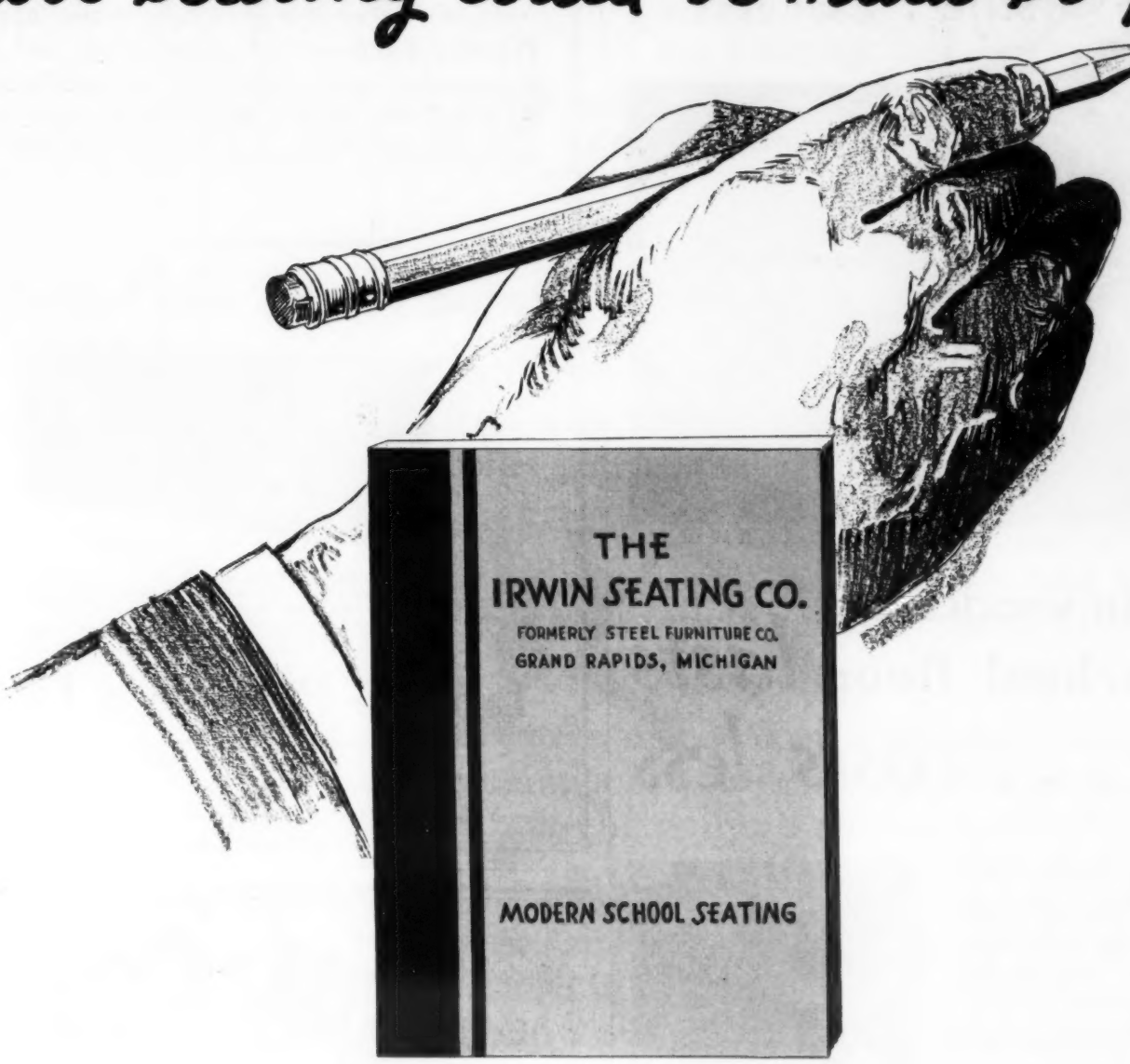

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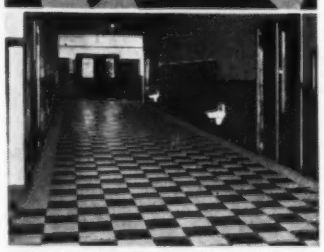

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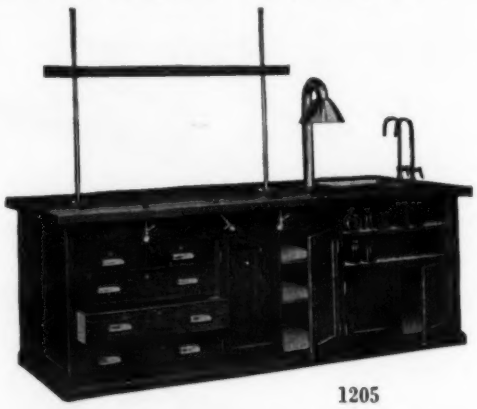

1205

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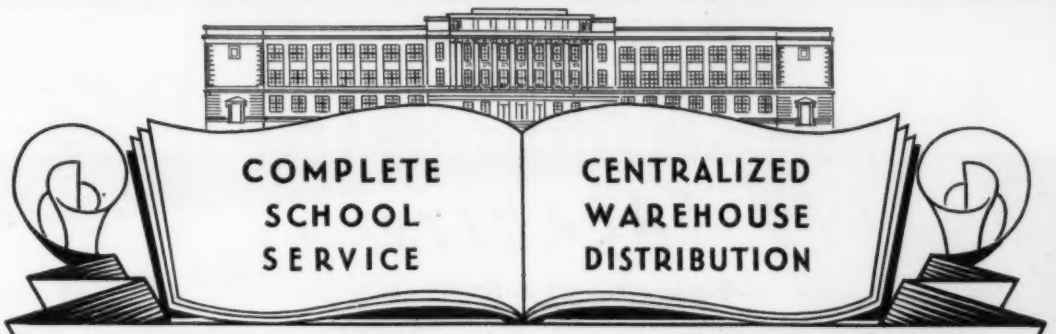

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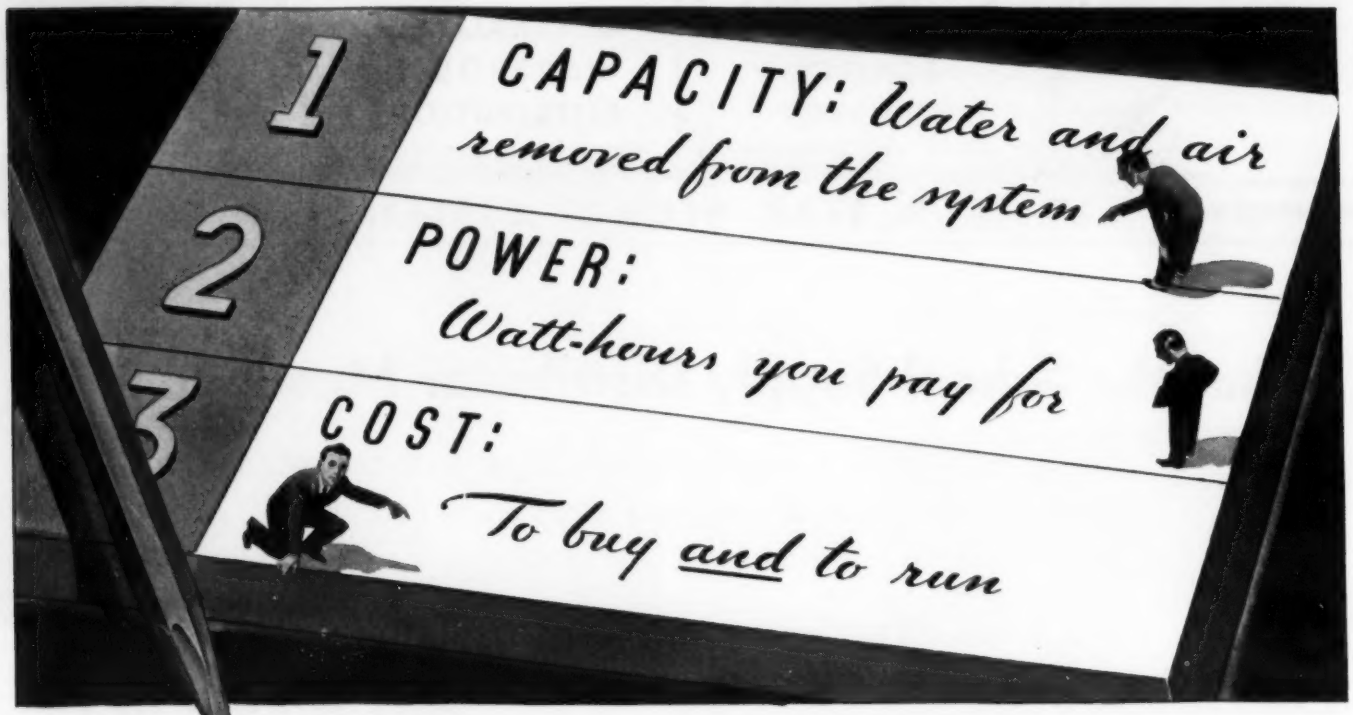

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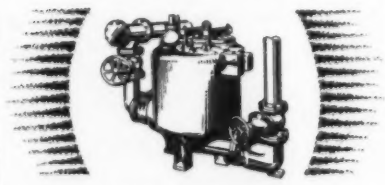

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Jennings Pumps have greater capacities. You buy more actual pumping when you purchase a Jennings. Driven by smaller motors, having extra capacity to remove air and condensation rapidly, they consume less power; cost less to operate.

Or, if you judge heating pumps by ratings in square feet of radiation, remember that such ratings are reliable only when water and air capacity and power consumption in a given time are also known.

On this basis you can always install a Jennings Pump at a lower initial investment.

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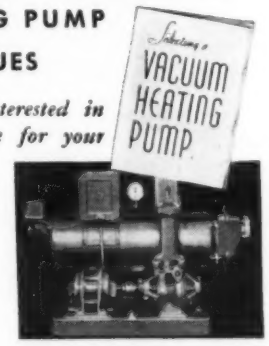

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School Finance Adjustments

The adjustments which have been in process in the field of school finance throughout the country have brought to light a few outstanding facts and conditions which should be known and understood. They are:

FIRST, that the great majority of school systems are financially sound and have no need to consider retrenchments, such as salary cuts, shortening of school terms, lopping off special studies, and the like. Their budgets are subjected to reasonable economy and the school will go on with the usual order and efficiency.

SECOND, that where boards of education have called upon banks for loans they have been met with a ready response. In some instances the banks have demanded the assurance that a balanced budget has been effected. This is reasonable and businesslike.

THIRD, that the great majority of school systems will continue to purchase supplies, textbooks, and the usual school paraphernalia in the future as they have in the past, and meet their payments promptly.

It may finally be said, that the nation's great enterprise, namely, the public schools, will carry on with characteristic energy, enthusiasm, and momentum. The American people believe in their schools and will support them loyally and liberally in a stormy season as well as in fair weather.

THE EDITOR

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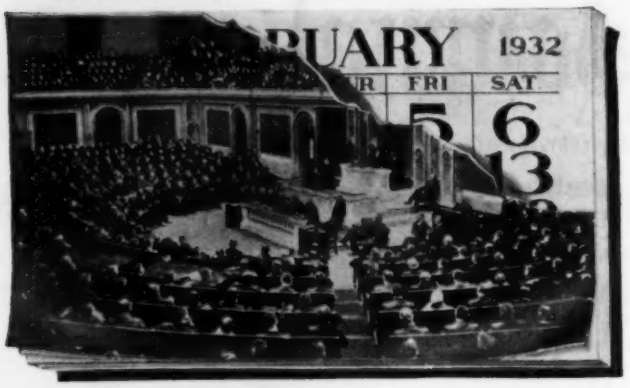
The contents of this issue are listed in the *Education Index*. Member, Audit Bureau of Circulation and Associated Business Papers.



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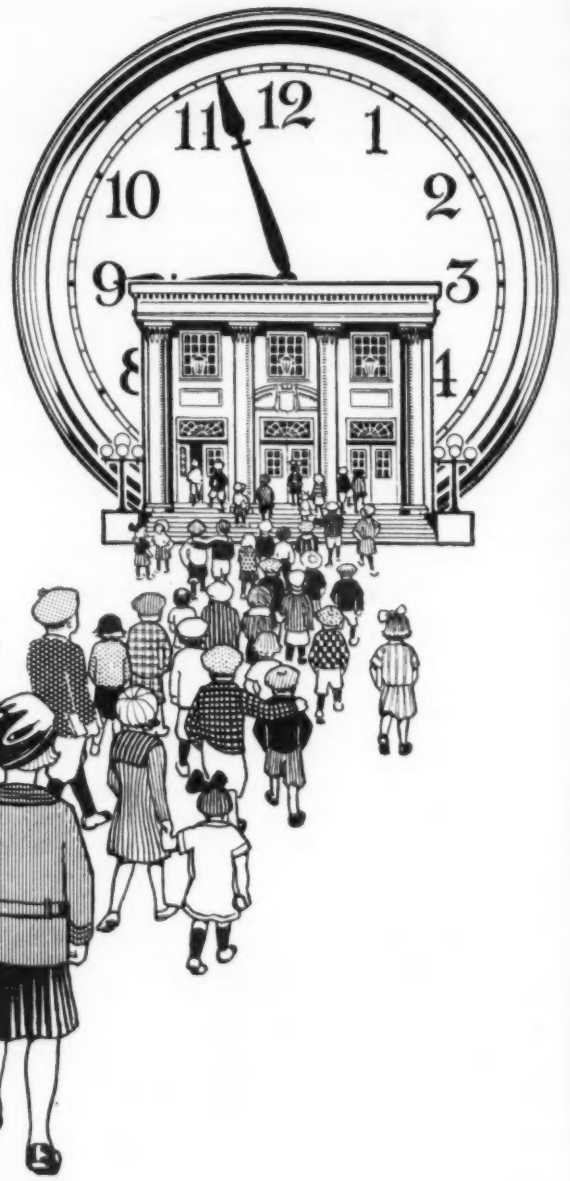

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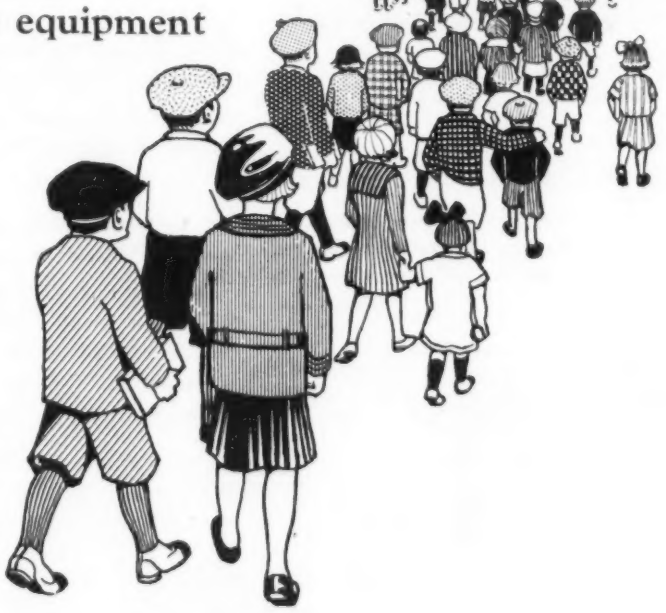

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ADMINISTRATION OF THE SCHOOLS
SCHOOL BOARD
THIS IS MY BUSINESS!
CITY GOV'T
SCHOOL FUNDS ALLOWED BY THE CITY GOVT
DICTATION AS TO SCHOOL BUDGETS. COURSES OF STUDY. SALARIES. SUPPLIES. CHOICE OF TEACHERS &c. &c. &c.
Harold Heaton
AMERICAN SCHOOLBOARD JOURNAL

"HANDS OFF!"

Tax Reduction and the Cost of Education

Roscoe Pulliam, Harrisburg, Ill.

"Were nations to embark in the cause of education for the redemption of mankind, as they have in that of war for their destruction, the darkest chapters in the history of earthly calamities would soon be brought to a close. But where units have been grudged for education, millions have been lavished for war. While, for the one purpose, mankind have refused to part with superfluities, for the other they have not only impoverished themselves, but levied burdensome taxes upon posterity." — *From Horace Mann's Eleventh Report.*

There is no doubt but that public education is confronted with a crisis, perhaps the severest it has faced in several decades. The long-continued economic depression with its rapid deflation of the gross national income and of all sorts of other values, coming immediately upon a period of expansion and schoolhouse construction with borrowed money, has hastened the final inevitable breakdown of antiquated and iniquitous systems of taxation, until today the situation in some states is serious indeed.

In the third richest state in the Union over one half the teachers have gone for five or more months without pay, and do not at the time of this writing have any relief in sight, though a befuddled and quarrelsome state legislature has been in special session for two months for the purpose of finding a temporary solution of the problem. Unless unforeseen events lead to some drastic change in present tendencies, marked reductions in school expenditures are inevitable in many regions.

School Costs in the United States

Comparisons of school costs in the United States as a whole with expenditures for other things, usually things of quite trivial relative value, have often been made;[1] but these comparisons have usually been quite futile because of the fact that they do not suggest anything that can be done about it. If Americans will spend as much on cosmetics and tobacco as they do for public education, that is an interesting fact, but it leads nowhere in particular.

A set of comparisons that seem to the writer to be much more to the point was suggested some months ago by J. McKeen Cattell in his criticism of the work of the National Advisory Committee on Education.[2] He suggested that there be an amendment to the Constitution providing that every time Congress appropriates a dollar to military expenses, another dollar be automatically appropriated to education. The writer became interested in how such an arrangement would affect his own school. From a copy of the Federal Budget for the fiscal year 1931–32, he made the following computation:

Federal Budget Items

Amount appropriated for present war preparations	$719,089,283
Number of people in the United States	120,000,000
Annual per capita cost of present preparations for war	$ 6
Population of the writer's own school district	12,000
Cost of war preparations to said school district	$ 72,000
But the elementary school (first six grades) of this community costs only	$ 71,000

Accordingly, present war preparations cost this coal-belt school district $1,000 or 1.4 per cent more than the elementary school. Yet those who want to reduce the high cost of public service are persistently suggesting a reduction in the salaries of the teachers, who now get from $100 to $150 a month for nine months, swell the ranks of the unemployed one fourth of the time in good times as well as in bad, and are required to have as much formal training as half the present lawyers and physicians have had, and half again as much as all but a few of the most enlightened of the business men. But these same tax protesters say not a word about the salaries or the number of admirals and generals. The reason is that they have never found out what the luxury of a huge navy and a potentially huge army really costs the country directly, to say nothing of its indirect cost, at present incalculably large, in ruined European markets and depreciated foreign bonds.

School Versus War Costs

If one takes the total cost of wars, past and present, the computation takes on still more appalling proportions as the following table will show.

Total amount appropriated for war debts, pensions and national defense	$2,733,123,283
Number of people in the United States	120,000,000
Annual per capita cost of wars, past and anticipated	22.80
Population of the writer's school district	12,000
Total cost of war activities to said school district	$ 273,600

But the whole cost of the public school, high school, junior high school and elementary school is only $137,500 or a little less than half the total cost of warfare.

The total military budget includes the constantly growing world-war pensions, which have been and now are being given a political rather than an economic administration. The writer has, in his own circle of acquaintances, a number of able-bodied men, who receive good incomes and who are drawing disability pay for alleged injuries in military service. Most conspicuous among them are two professional men, each able to carry on a practice that nets more than $10,000 a year. Both these men draw total disability pay, though neither was ever out of the United States, before, during, or since the war.

Drawing the comparisons described in the foregoing has suggested yet another one which aims to get at state instead of federal governmental extravagances. The director of research of the state teachers' association was asked to copy from the books of the state auditor the names and salaries of all persons on the state payroll from the county in which the writer is a resident. This list shows that 161 persons drew in 1931 directly from the state treasury and that a total of $137,700 was paid out to them. It is, of course, hard to determine just how much of this money is actually spent for necessary services to the people of the state, but a number of informed citizens well acquainted with the public affairs of the county have estimated that far more than half, very likely three fourths, of this money does not buy any reasonable necessary service other than the dubious one of keeping the present party in power. What can be said with certainty is that, in a county whose total population is only 37,100 the sum of $137,700 is being spent mostly for services of doubtful value. In other words, at least two thirds of a total of nearly $4 per capita, over $18 per school child, $360 per teacher, has been squandered on do-nothing jobs during the same year that the state treasury found it impossible to pay more than 65 per cent of the distributive fund to the schools, while other necessary services, the niggardly mother's pensions, for example, had been entirely suspended for lack of funds.

The Larger Significance

All of these matters have some larger significance for the schools, as has our utterly stupid leadership and docile, even more stupid, following in all phases of our collective existence, for it bespeaks our failure in exactly the sphere for which such early proponents of universal free education as Thomas Jefferson and Benjamin Franklin sought to establish the schools. But the immediate implication of the simple and obvious facts that have been presented is that we who are interested in preserving the essential portions of our school system should by all means see that these facts are vigorously and clearly presented. Few people would maintain that, if we must reduce one or the other, the schools should be made to suffer before the military establishment is touched, and certainly still fewer would defend preserving the expensive structure of machine politics at the expense of education. The trouble is that our citizens do not know the facts. It is part of the duty of professional school people to see that they get them in their local setting, and in as concrete and dramatic a form as it is possible to present them.

NEW ANDREW JACKSON HIGH SCHOOL, NEW YORK, N. Y., LATEST WORD IN SCHOOL ARCHITECTURE

The new Andrew Jackson High School, in Queens Borough, New York City, will represent the latest word in the design for city high schools, and one which will be used in two other high schools in the Bronx, and one in Brooklyn.

The Jackson High School, the first of the new type, is a modern adaptation of the modernistic style of architecture, and is the work of Mr. Walter C. Martin, architect of the board of education.

The building is constructed of brick, stone, and imitation bronze polychrome terra cotta spandrels above the granite base. Above the main entrance at the tower are four imposing stone piers, each typifying a branch of the work in educational and cultural lines. The tower is terminated with a copper roof.

[1]For example, the Research Division of the National Education Association last year released figures gathered from various official, or semiofficial sources to show that the national bill for public schools of all sorts including state universities in 1930 was less than that for life insurance, not quite half the combined cost of certain common luxuries, like cosmetics, chewing sum, and soft drinks, much less than half what is spent for building construction, and scarcely one fourth the cost of passenger automobiles.

[2]*School and Society*, 34: 325–336.

Guesswork and Teacher Selection

Some Things School-Board Members Should Know About the Selection and Retention of Teachers

Ernest W. Tiegs, Los Angeles, Calif.

A group of medical men were gathered in consultation on a baffling group of symptoms displayed by one of their patients. The first physician had made a somewhat uncertain diagnosis and had immediately called into consultation a second physician who made a considerably different diagnosis. When together they decided to consult still another colleague, the result was a third diagnosis, somewhat different from the first two. Even experts find difficulty in interpreting the phenomena of their special fields. Yet in spite of this uncertainty, no one would think of advocating diagnosis by a layman rather than by a reputable physician.

A few years ago, a large number of Chicago insurance executives undertook to demonstrate their ability to pick good insurance agents. Arrangements were made for a considerable number of successful, as well as unsuccessful, agents to apply to these executives for positions. The executives ranked the applicants in the order in which they rated their productive capacity. When the interviews had been completed and the ratings had been tabulated, the results indicated that important and successful insurance executives were poor judges of the probable success of applicants; that such success as they had enjoyed was probably due primarily to factors other than the ability to judge productive capacity which many had imagined their forte to be. They had, in fact, demonstrated themselves to be amateurish laymen in this respect.

Failure of Older Techniques

Evidence seems to indicate that, in general, the differences between teachers are small; but that such differences as there are, are frequently vital. It is the very uncertainty of these evidences of teaching ability that require the services of carefully trained professional workers rather than such laymen as usually constitute boards of education. The writer spent two years investigating this problem in connection with the selection of teachers.[1] The purpose of the investigation was to find out how effective the commonly used techniques of selection actually were. Several hundred teachers were studied during the course of the investigation. As a part of this study twenty-five teachers were selected at random from a group of one hundred elementary teachers who had been employed on the old basis of selection. Expert judges were appointed to examine the evidence upon which teachers had been hired, and were asked to rank them on their probable relative success on the basis of their (1) letters of application; (2) their photographs; and (3) their letters of recommendation. When these ratings were compared a year later with the relative success achieved by these teachers after a year in the school system, the following conclusions resulted:

1. There was a slight negative relationship between what teachers say about themselves in letters of application and the relative success which they earn in actual teaching.

2. The photograph was practically useless in predicting the probable relative success of a group of teachers. A judge was about as likely to choose the poorest as the best teacher from photographs.

3. There was only a negligible relationship between recommendations written for teachers and the relative success which they enjoy as teachers. One writer has suggested that it is due in some measure to the fact that letters of recommendation vary from very carefully thought-out and verified statements of the candidate's teaching success, to joy at the prospect of a separation long overdue.

[1]Tiegs, Ernest W., *An Evaluation of Some Techniques of Teacher Selection* (Bloomington, Ill.: Public School Publishing Co., 1928).

One of the difficult duties of the waning school year is the selection and employment of new teachers for the coming school year. March and April are not too early to think about this job. A scientific basis for this work is presented in this suggestive paper.—The Editor.

Another large group of teachers was given a professional and an intelligence test. The professional test predicted to a very slight degree only the relative rank which would be assigned to teachers after a year of teaching in the system. The results of the intelligence test predicted even to a lesser degree the ranks which the teachers attained in the system after one year of experience.

To laymen, these results would suggest that no techniques were worth while; and it is for this reason that professionally trained workers should be used in teacher selection. The first reactions of several who read this study were erroneous because of failure to distinguish between relative and absolute success. While none of the techniques used predicted relative success to any large extent, it is nevertheless true that only a negligible percentage of all teachers chosen proved to be unsatisfactory, according to the standard of success in vogue. The professional test did not predict the future relative success of teachers to any significant extent, but it did detect those who were best informed and those who were least well informed on professional theory and practice. The fact that the intelligence test did not predict relative teaching success to any significant degree has been interpreted by some to mean that intelligence and teaching success are not particularly related. However, the differences in intelligence between these teachers was not very great, and a more plausible explanation would indicate that all the teachers possessed more than enough intelligence to carry on the group of activities known as teaching. The difficulty of these analyses and the importance of selecting the best teachers make clear the desirability of placing responsibility for teacher selection in the hands of professionally trained workers.

Traditional Methods Lack Objective Evidence

The old-time superintendent made simple work of the matter of selection. He simply assumed that he knew how to select teachers, and it never occurred to him to check up to find out how good his guesses were. And even today, some of the "old-timers" hold to their mistaken ideas with a tenacity that does more credit to their persistence than to their discrimination.

It is a comparatively simple matter to show that those who insist on using the old techniques of selection are about equally unsuccessful. And investigation of the records of several hundred teachers to determine who recommended them, how highly they were rated before entering the service, and how they were rated after experience in the school system, indicates that none of the users of letters of application, photographs, and letters of recommendation, exclusively, have a very high batting average. Practically all teachers selected were rated "excellent" before they were employed, but a monotonously large number were rated "fair" and "good" after varying periods of service. While there were few "put-outs" among this large group, there were many educational "fouls" and "singles" where "home runs" had been indicated on the preselection ratings.

The prevalence of traditional methods of selection, as well as evaluation after selection, has made it difficult, if not impossible, to produce definite evidence on a number of problems, among them the question as to whether or not married women should be allowed to teach, whether local girls should be employed, etc.

While the problem of the employment of local girls in small communities should theoretically be settled on the basis of the teaching efficiency, it has proved a very dangerous one for superintendents in a number of systems; it sometimes leads to the division of a community as a reflection of school-board differences and to danger to the position of the superintendent himself. While the difficulties inherent in the employment of local girls should not be minimized, it is nevertheless true that a general policy against such employment is a discrimination against local girls whose parents are paying taxes for the support of such schools. Surely some better solution should be found for a problem which is primarily educational.

There is no good reason why the work of teacher selection should not be based on a scientific evaluation of her actual work. There are a number of types of very definite objective evidence that may serve together with other factors as the basis for selection. Despite the unreliability of old techniques in predicting the future relative success of teachers it is nevertheless true that these techniques have other functions which make their continued use desirable if not necessary.

Professional Tests as an Aid

Among these types of objective evidence, there are none more important than the intelligent use of professional tests and the test results of pupils themselves.[2] The professional test for teachers cannot yield all types of information concerning her, but other things being equal, the teacher who knows most about the theory and practice in education and content of her subject will be the best teacher. Instead of depending upon what others say about her knowledge, her ability in these fields may be revealed by carefully standardized tests. Only a few such tests have been developed; the field is still new; but better and better tests will be developed if those who select teachers will show a disposition to coöperate by using them and studying their results.

Within certain limits, the success of teachers is revealed by the test results of their pupils. When the results of standardized tests indicate that a class is about normal; that is, that the average ability for the class as well as the range of ability, is equal to that of other similar classes; that there are no unusual or unfavorable circumstances, some definite expectations should be realized; certain definite scores should be earned on carefully standardized tests; and certain definite gains should be made. On the other hand, if the class does not reach the standard which has been set, it is neither fair nor scientific to assume first of all that the teacher is at fault, any more than it is to assume that she is entirely responsible when a class does much above average work. Tests do not as yet measure all outcomes of education, but they do reveal certain important aspects of

[2]Tiegs, Ernest W., *Tests and Measurements for Teachers* (Boston: Houghton Mifflin Co., 1931), pp. 210–221.

achievement; and these evidences, rather than ideas and opinions, may serve as the basis for evaluation.

The whole measurement movement is relatively new, hence the problem of improving techniques of teacher selection simultaneously with their use in selection and evaluation. The traditional school official frequently made such a statement as the following: "I don't care how a teacher teaches, so long as she gets the results." But the chances were greater than three to one that he never did find out whether or not results were being obtained, because he depended upon superficial visits, snap judgment, and unaided estimate. The well-trained modern superintendent or principal may not be so generous in choice of methods; but he does find out whether or not teachers are getting results in certain subjects through the use of standardized tests.

In view of the weaknesses and uncertainties inherent in most current plans for the selection of teachers, it has become the practice to employ them first on probation. This allows an opportunity to learn more about their abilities and limitations before a final decision on tenure becomes necessary. However, all too often decisions on permanent tenure are made without any real study of the teacher's work. Too often, there is no real plan for keeping in touch with probationary teachers; supervisors, many of whom spend most of their time in demonstration teaching, know little of what teachers are actually doing. Principals in many school systems are notorious in their neglect of classroom visitation, and lack of first-hand knowledge of teaching activities, due no doubt in part to an overcrowded program, but also in part to lack of training in supervision. The results of tests which the teacher took upon entrance are forgotten and never carefully compared with other tests given later in determining permanency of tenure. The test results of her classes are not preserved and compared with the previous record of the same classes under other teachers. The teacher's record of self-improvement, her magazine reading, book reading, and university courses are unknown and unconsidered. In other words, decisions on permanency of tenure are not made on the basis of careful, objective evidence.

Objective Reasons for Demotion or Dismissal

Periodically, it apparently becomes necessary to drop teachers from the roster. A few years ago, the members of the board of education of the city of Chicago issued a statement indicating that the law gave them power to drop a teacher at any time for any reason or for no reason whatsoever. Such an attitude is extremely shortsighted, and if held by any boards at the present time, is at least not advertised.

However, if a teacher has successfully pursued her training courses and passed the tests of the training school; if she has been selected with due care, has been faithful in continuing her self-improvement and has been serious in her work, the lack of teaching success is almost certain to be due to a greater or lesser degree to failure of the supervisory staff. It is too late to raise questions concerning her training; it is too late to reconsider her experience. After these have been accepted and she is given the opportunity to qualify for permanent tenure, nothing which could have been discovered before her selection was confirmed should operate against her. But, of course, the crudeness and vagaries of much of our present selection technique make it impossible for school administrators to live up to the theoretically just principle.

In any case of evaluation which results in a lowering of standing, a demotion, or dismissal from the staff, certain very definite steps should be employed for the protection of the teacher, among them the following:

1. The teacher's unsatisfactory work should have been carefully diagnosed, weaknesses pointed out, suggestions and instruction given her in better procedures.

2. The supervisor, principal, or both, should have evaluated her use of the new procedures and assisted her to gain control of them. Presumably the new procedure should have had something more than mere opinion back of it.

3. The teacher should have been given ample opportunity to demonstrate whether or not she has been able, unable, or unwilling to make such changes in procedures as have been suggested.

4. If the teacher has been unwilling or unable to master the new techniques, the supervisor should be in a position to show that pupil achievement has been lowered as a result of such failure and not because of other factors.

But there is an additional problem: If a probationary teacher is able to grasp and apply the suggestions of principal or supervisor, and pupils fail to progress satisfactorily, who is responsible? Shall the question of the efficiency of principal or supervisor be raised? Such a result is quite unlikely; and other factors might account for the situation. It is only fair to the teacher, therefore, to grant her the same consideration and seek for other possible causes when her procedures appear unsatisfactory.

Teachers, almost without exception, are anxious to succeed. They make great sacrifices in time, effort, and money to prepare themselves to succeed. At best, their salaries are lower than that of other professional workers who invest similar sums in their training and have equal experience. They continue to serve, largely because of their social and professional ideals. The necessity for dismissal should rarely arise in such a group.

Useful Considerations in Picking Teachers

The following summary is offered for the consideration of those who must select teachers:

1. Training and Experience

Does the candidate meet the minimum requirements in training and hold the necessary degrees and credentials? These facts should be very carefully determined. Each year a number of teachers are dropped at the last moment because of misunderstandings or misstatements regarding their qualifications. Sometimes schools are taken from the accredited list because local boards insist on keeping teachers who are not properly qualified. In some instances, state monies have been withheld.

2. Experience

Has she had the minimum period of experience required by the system? The term "experience" is subject to many interpretations. Those in charge of selection should ascertain carefully whether or not the experience is of the particular type demanded; whether it has been obtained in public or private schools; whether the private-school experience has been equal or superior to that of the school in question; whether the candidate has served as full-time, half-time, or part-time teacher; whether she has been on a regular contract or was paid for days actually taught. In the latter case, it is advisable to learn how many actual days of teaching were done, and the average length of time in each school and each subject. The quest for this detailed information will usually yield a good deal of other supplementary information.

3. Success

Has the teacher been successful in her work in her previous position or positions? If she has taught in a fairly large system, the chances are that those who reply to letters of inquiry will not have seen her teach. Such letters as are written must be read very carefully. Frequently replies which appear direct and open are in reality evasive. And where a reply of this type is received, the recipient should not at once assume that something is wrong with the teacher. Some teachers take instructors' application blanks seriously and naïvely give the names of all of their supervisors as references; other teachers give only the names of those who will write very enthusiastically about them. In some systems, one unfavorable or even calm, judicial letter in four or five is fatal; they must all abound in superlatives. But other school systems have learned that almost any *average* teacher can get *excellent* recommendations from her friends, whereas an *excellent* teacher sometimes finds it difficult to get even an *average* recommendation.

4. Letters of Application and Photographs

What teachers say about themselves appears to be of relatively little consequence. Some who select teachers expect them to be very enthusiastic about the city, to be unconcerned about the size of their salaries, and to be possessed of a great missionary desire to spend themselves in the service of the system; some teachers do actually write in this vein. Others frankly admit that they are ambitious to better themselves, that they are applying because the salary will be higher, and that other advantages would accrue to them. Good teachers write letters of both types.

Photographs are useful for identification purposes. A number of studies indicate that they are of no value in predicting teaching success.

5. Scholarship

What has been the scholarship of the teacher in the training school? Despite the unreliability of traditional marks with respect to a particular subject or course, the average of many such marks has been found to have considerable significance, since, theoretically, an individual is marked too high about as often as too low. Such marks reveal whether, in general, teachers have consistently marked this applicant in the lowest or the highest groups or considered her of average ability. There is no evidence to show that the teacher with the highest marks will always do the best teaching; but certainly the teacher who is deficient or indifferent in scholarship will not make the best teacher.

6. Professional Tests

It is possible on rare occasions for teachers to graduate from training schools without any adequate professional training. Some time ago, a feeble-minded girl was found teaching a rural school. A man, who was appointed county superintendent of schools during an emergency, failed utterly in passing the same examination

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THINKING IN EDUCATION

Education has been so massified, standardized, mechanized, and formalized, that it has just about become ossified. We have lost sight of individual. We have taken the life out of education. We have even standardized the teacher. You can lead a child to the task, but you cannot make him think, and thinking is the important factor in education. It is just what we are not teaching children to do in this day and age.

We need to change from talking about "instruction," and spend some time talking about "learning." We need to go from teaching to guidance. We have spent very little time talking about what goes on in the heart of the learner, and still less time trying to really find out about that.—E. E. Lewis, Ohio State University.

The High-School Principal in the Role of Supervisor

Harlan C. Koch, Professor of Secondary Education, the University of Nebraska

We assume for the high-school principal a place of dynamic educational leadership among his teachers. We conceive for the principalship a professional significance of the first magnitude. The implications of this office make it unique among others in the school system. By this sign the strategy of the position is peculiar. Let us see what the philosophy of the principalship is.

Charters holds that no other executive position in the school system approximates it. He says:

> The principal has the most powerful executive position in the school system. The superintendent's position is not its equal in importance. To the superintendent belongs the duty of educating his public and obtaining the necessary financial support. To him is delegated the task of providing the buildings and equipment, the setting for the work of instruction. Upon him depends the morale of the teaching force. Of prime importance are such contributions. And it is with such an appreciation of the value of his labors, that I say that the principal has the most powerful executive position in the school system. No position is more powerful than his except that of the classroom teacher. The efficiency of class instruction is the measure of efficiency of education. For the classroom teachers, all executives are hewers of wood and drawers of water. But among school executives the principal is the most important.
>
> . . . Training on the job means analyzing mistakes and correcting them. A teacher is trained on the job by a principal when the principal observes her, commends her good practices, analyzes her mistakes, and shows her how to correct them. . . .
>
> With such a definition of training on the job, it is quite clear that the principal is better situated to train his teachers than is any other executive. . . . He drops into the rooms, observes the teachers in the halls, in the office, and in conference. He gets to know the work of his teachers intimately and from his knowledge he can advise wisely and economically.[2]

In similar vein Buckingham has this to say:

> Let us exalt the name of teacher. Let us grasp firmly the thought that a school with good teachers needs little else and that the school without good teachers will be little the better for anything else. But let us realize, too, that the principal is the teacher *par excellence*, that he is a leader of teachers. In a large system central supervision is remote and offers no sufficient guide or motivation for teachers. The building is the natural supervisory unit; and it is through the building principal that central supervision becomes effective[3]

These statements, which easily could be duplicated many times, are interesting because they have emanated from individuals who generally are not thought of as specialists in secondary education and therefore exhibit no particular bias in that regard. The fact that they ascribe a unique importance to the position in question accordingly becomes more significant.

The whole situation, then, resolves itself into one of educational leadership. But leadership implies followership. Thus far we have spoken of the ideal principalship. Henceforward we shall deal with the work of the principal as it is reflected in the attitudes of teachers in secondary schools. Do they accept his leadership? If not, why not?

For the past eight years we have been at some pains to look into certain matters pertaining to the administration and supervision of secondary education. As a result of such activity, there repose in our files data submitted by many hundreds of teachers, department heads, principals, and superintendents scattered the country over. Insofar as this information is pertinent to our present needs, we shall make it basic to our discussion. We have arranged this material under two main headings: First, what teachers, in confidence, have said they really want to know; and second, the queries which they have actually passed on to the principal. Please note, as we proceed, how widely the two patterns differ. First of all, we shall turn to what teachers really want to know.

Leadership in the high-school principal is best expressed in the supervision of teaching, which in the secondary school, is always a difficult problem. Dr. Koch has made a number of intensive studies of supervisory methods and writes suggestively and helpfully.—Editor.

What Teachers Want to Know

Our evidence indicates that, first of all, teachers want information about the administration of pupil personnel. Specifically, this general topic breaks up into many subcategories, such as discipline, individual needs, promotion, health, and the like. Next comes the general topic of methods of conducting the recitation, with its subsumptions of the assignment, the presentation of the lesson, pupil participation, pupil preparation, lesson plans, the art of questioning, and the like. Next in frequency of mention are methods of developing pupil appreciation of the better things. These three topics alone, namely, pupil personnel, methods of conducting the recitation, and the stimulation of pupil appreciation, comprise two thirds of the teachers' difficulties. Then, in descending order of mention, come these remaining general divisions: relations with other teachers, the principal, and the superintendent; courses of study; special rooms, including homerooms, halls, laboratories, study rooms, and the like; the physical conditions of teaching; extracurricular activities; the program of classes; and finally, the curriculum. Neither does this order materially change when examined from such points of view as the experience, sex, or graduate training of the teachers involved. Even when the ten general types of problems just enumerated are looked at upon the basis of the subjects which the teachers were teaching, only minor transpositions emerge.

This naturally intrigues our attention. Why is it that teachers exhibit more apprehension over such matters as the handling of pupils, methods of instruction, and pupil motivation than over all other types of difficulties combined? This conclusion is supported by approximately a half dozen other investigators who have approached the problems of the classroom from as many different directions. The late Stephen S. Colvin gives us a clue in the statement that discipline, for instance, is prominent, not because in itself it is the one overwhelming factor, but because without it nothing worth while can be achieved.[4] The number of inquiries raised by teachers which bear upon this aspect of their work attest their appreciation of its significance. Furthermore, teachers are immediately cognizant of any change, actual or desired, in this category of experiences, whereas the more intangible aspects of their work, perchance equally important, appear more remote and therefore less pressing. Finally, as everyone knows, the supervising authorities are more insistent in matters of methods and pupil attitudes, and the like because they are so evident on the face of things. We conclude, therefore, that teachers are perturbed over such matters because they are immediate and inescapable; they are stressed by the school authorities; and they are fundamental to success in the classroom.

Problems Submitted to the Principal

After this brief consideration of the situation as it was confidentially reported by the teachers, we turn to the queries submitted by the teachers to the principal. Let us be clear at this point. We are about to discuss the principal's relation to his teachers, not upon the basis of the problems which he himself discovers, but upon those which his teachers voluntarily refer to him. We have adopted this approach to the immediate task of examining the high-school principal in the rôle of supervisor, because whatever the passive attitude of his teachers may be toward his supervisory activities, their acceptance or nonacceptance of the principal as their professional supervisor clearly manifests itself, on the one hand, in the extent to which they actively seek him in moments of perplexity and, on the other, in the nature of the inquiries which they voluntarily submit to him.

On this basis, if our data are typical, we can work out a scale of problem-expectancy for the principal. Thus of every 1,000 problems referred by the teachers to the principal, 439 will be related to the management of pupil personnel; 179 to extracurricular activities; 74 to the teaching force; 61 to the physical conditions of teaching; 58 to special rooms; 58 to methods of creating pupil appreciation of better things; 51 to methods of conducting the recitation; 44 to the course of study; 30 to the daily schedule of classes; and finally, only 6 to the curriculum.

When we make comparable these two arrays of problems, namely, the order in which they are encountered by the teachers on the one hand, and the order in which they are passed on to the principal on the other, some very interesting implications emerge. For instance, when we group all the topics which may be considered managerial, such as physical conditions, pupil management, extracurricular activities, the schedule of classes, special rooms, and the teaching force, we discover a pronounced tendency for teachers to emphasize them relatively more in the presence of the principal than in the quiet of their own thinking; while such topics as courses of study, methods of conducting the recitation, and the development of pupil appreciations are suppressed relatively more. Obviously, all of these latter topics may reasonably be assumed to be significantly educational rather than managerial, in the sense in which we are employing the latter term. In regard to the curriculum, there is no change. It remains at the bottom of the list. In passing, we shall say that teachers have traditionally been excluded from curriculum matters. They have therefore been indoctrinated with the idea that the curriculum, in a very peculiar way, is the responsibility of the general officers of the school system, and as a consequence, refuse to get excited about it. This is reflected in the almost total absence of concern over curriculum matters in the teachers' private thinking; therefore practically no problems of this nature are passed on to the principal, simply because there are none.

Now in all of this there is the uneasy implication that the principal is missing his main chance. In the wide divergence between the classroom and the principal's office — and in the case of methods of instruction the gap is wide indeed — do we have evidence to conclude

[1] An address delivered on the occasion of the Eighteenth Annual Conference on Administration and Supervision, the University of Iowa, October, 1931.

[2] Charters, W. W., "The Principal's Main Chance," *JER*, 7:109–116, February, 1923.

[3] Buckingham, B. R., "Motivation by the Principal," *Proceedings, Second Annual Education Conference* (The Ohio State University, 1922), pp. 19–29.

[4] Colvin, S. S., "The Most Common Faults of Beginning High School Teachers," *The Eighteenth Yearbook of the National Society for the Study of Education* (1919), pp. 262–272.

that the principal may be forsaking his professional ways and specializing as the manager of a plant? In the light of the evidence adduced, have teachers come to the conclusion that, after all, their judgment in matters pertaining to the innermost aspects of their work is as valid as the principal's? Must we conclude that in practice, ideals to the contrary notwithstanding, the principal as a rule is an administrator, an organizer, but *not* an educator and that this is reflected in the nature of the inquiries which reach him? Or does he fall short as a real educational leader because his training in service provides no stimulus to professional growth? Either horn of the dilemma is professionally calamitous.

What Brings Principal and Teachers Together?

Let us pause for a moment to examine the factors which presumably control this situation. We have just said that administrative problems go up to the principal with disproportionate frequency. Apparently the logic of school organization dictates this. It is apparent that matters which affect the school as a whole clearly exceed the prerogatives of the individual teachers. Some central agency must reserve to itself the authority to act here. Elsewhere, however, teachers are not so conditioned. We are thinking at this moment of such matters as the controlling, the marking, and the promotion of pupils. Surely no one can act for the teachers in these connections. As the logic of the situation rests with the principal or his duly selected representatives in general managerial matters, so here it rests with the teachers. This being the case, we are forced to conclude that tradition plays a large part, particularly when teachers refer so large a proportion of their disciplinary difficulties to the principal. In short, many teachers look upon the principal's office as a disciplinary device. If we may be permitted a further digression, we shall say that one of the most constructive services the principal can render his teachers is to lead them away from this point of view. In saying this we are not unmindful of the fact that all the resources of the school must, on occasion, be brought to bear upon difficult cases. Just where the balance lies is a difficult thing to determine. It is a delicate question indeed.

Further, since teachers are human beings, even when the logic of the situation places adequate resources in their hands to deal with the problems which confront them, they crave the comfort of a confessional. They want desperately to talk things over. Here is a pupil on the verge of failing, upon whom all the ingenuity of the teacher has been expended. What more can be done? And so it goes. A decision, final in its implications, is both imminent and inescapable. The teacher has exhausted all her resources. The problem goes up to the principal, and rightly so. Perchance the principal can do no more than to concur in the judgment of the teacher and to commend her handling of the case, yet she leaves his presence comforted by the thought that what she is about to do is sanctioned by a higher authority.

Educational Difficulties

Finally, let us turn to the other type of difficulties, namely, those not managerial but educational in nature. We have now reached one of the high points of our problem. Why do the teachers here tend to avoid the principal? We have seen that two of the three aspects of the teachers' work which admittedly trouble them most are officially discussed least. Whereas, for instance, 64.5 per cent of problems related to the teachers' experience with extracurricular activities finally reach him, only 5.9 per cent in the methodology of the recitation and 8.2 per cent in relation to pupil appreciations are so referred. Truly this is most disproportionate. If the teachers were not on record as being tremendously perturbed at these two latter points, we should be forced to conclude that they either had solved these particular problems or had become inured to them. We know, however, that neither is the case. Apparently, then, we must add such other factors as the inexpectancy of supervisory aid through the office of the principal, the unwillingness to run the risk of compromising their professional standing in the estimation of the school authorities, and the like, to our former array of reasons, to make up the sum of those which actually control the pattern of problems which reach the principal after their origin in the classroom.

We can go no further without disposing of the question whether teachers really desire supervision by the principal. So far as our data throw any light on the matter we must conclude that, by and large, they have not demonstrated a willingness to attract supervisory attention. Fortunately we can cite the findings of an investigator who looked into this very question. We refer to the inquiry directed by Olga M. Saunders and reported under the caption, "What the Teachers Want from the Principal in His Capacity as a Supervisor."[5] After securing the opinions of teachers she concluded that teachers may be reasonably divided into three groups: "The bold, the timid, and the courageous; and their corresponding wants can be classified under the three main headings of noninterference, minute directions, and democratic supervision." She says that at least one third of the high-school teachers with whom she communicated belong to the noninterference group. "They frankly claim that principals do not know the content of all the high-school subjects and hence are not fitted to supervise them intelligently; therefore, they desire nothing from the principal in his capacity as a supervisor." Here are two quotations, typical of the opinions of this group:

> Do I, a highly trained specialist in my subject, want supervision from a principal? I should say not. Most of them are too ignorant of what I am trying to do to offer worth-while advice.
>
> I spent five years getting ready to teach my subject. Do you suppose I want a principal who knows less than I do about my subject coming in and interfering in my business?

The second group, according to Miss Saunders, is "made up of timid souls, willing to be supervised but so lacking in initiative as to want minute directions with regard to nearly every step of the teaching process itself. . . . A large task this group of teachers has carved out for the principal!

"Teachers of the third group are anxious to measure up to their responsibilities, are eager to do their part toward giving all the pupils who enter high school opportunities to develop their native capacities to the highest degree possible. Therefore, they want from their principal in his capacity of supervisor the following: (1) Accurate information with regard to the results of every type of modern classroom procedure that has been scientifically tried out and scientifically developed into a definite technique; (2) definite information as to which schools and in which classes these new types of techniques are habitually practiced; (3) an opportunity to visit teachers who are proving themselves masters of the new types of technique; (4) after the mastery of the theory of the new technique an opportunity to practice intelligently under the sympathetic supervision of the principal; (5) reliable information on what educational science claims are the correct quantity and quality of mathematics, English, or shop to offer an adolescent pupil with a low I.Q.; (6) new and carefully evaluated courses of study appropriate to the immediate and future needs of the pupil; and (7) teachable material on which the pupil, regardless of his I.Q., will thrive and eventually develop to the highest of which he is capable."

[5] *School Review*, 33:610–615, October, 1925.

The Principal's Educational Leadership

We have now arrived at the innermost substance of our problem. The evidence, in its manifold aspects, is before us. Its meaning is clear, too. It indicates that our colleges are turning their graduates into the field — potential administrators, supervisors, and teachers — alike unable to connect with one another in the most critical experiences of the teaching process; further, it shows where the principal is placing his efforts, either through ignorance of existing need or through complacent surrender to circumstances; and lastly, it reveals the need for a clear-cut professionalization of the principalship which will be recognized and respected, first of all by the principal himself and then by his teachers. The time has long since passed when the office can be glorified by administrative tinkerings-about.

Well, what can the principal do first to create and then to sustain among his teachers faith in his educational leadership? This statement includes even the "noninterference" type, who are present on every high-school faculty.

First of all he must enunciate, preferably through the coöperative efforts of his teachers, an adequate administrato-supervisory philosophy, one which will set him out in the proper perspective to the work of all others. This postulates on his part, however, a significant faith in his job. One reacts warmly to the words of the late Claude P. Briggs, principal of the high school, Lakewood, Ohio:

> I am not at all ambitious to become a superintendent of schools. I look upon the principalship as a definite profession, which holds out unlimited opportunities. A man is justified in training specifically for it and in planning to stay in it all his life. A superintendency does not attract me at all.

The writer was personally acquainted with Mr. Briggs, and he knows that the latter kept faith with these words. He died almost literally on the job, but not before he had acquired the enviable reputation of being one of the best high-school principals in the country.

What shall the essence of the philosophy of the principalship be? Not so long ago the writer had occasion to correspond with Supt. M. R. Keyworth, of Hamtramck, Michigan, in this very connection. We can do no better than to quote in part the words of Mr. Keyworth:

> It may be argued that a principal cannot be a specialist in all lines and therefore is incompetent to administer the instructional program in all subjects. This would imply that there are no general objectives in education and hence no basic principles of method that can be applied to various subjects. We hold that basic objectives of education are self-direction, self-appraisal, and self-control and that these are achieved by methods which enable students to discover their problems, to solve these problems successfully, and to take the initiative to achieve the solution. If we are right, then a principal who is a specialist in administering instruction can do better work than can a number of heads of departments. Experience shows that heads of departments in high school are usually educational traditionalists of the disciplinary type who believe that scholarship alone is the ultimate objective and who attempt to enhance a single department at the expense of the unified educational program. Only in the principalship as herein interpreted is it possible to give balance to educational programs and to achieve the ultimate objectives of education.

The Principal and Subject Mastery

Next, the principal should never make the fatal error of trying to appear encyclopedic in all the subject-matter fields. Regardless of certain opinions to the contrary, no one person can be expert in the specific methodologies of a broad curriculum. In 1922 the late Stephen S.

Colvin, in conversation with the writer, insisted that the principal should command several of these. With this point of view we cannot agree. Desirable as such mastery may be, its acquisition is humanly infeasible. It simply cannot be done. Rather let the principal command the professional respect of his staff through his very evident mastery of his own subject-matter specialty and its associated methodology, upon which he has superimposed adequate technical training for his work as principal, and all should be well. Teachers would be far less intelligent than their work requires them to be if they should fail to recognize as essentially artificial anything other than this. Indeed, it is a mark of professional integrity on occasion to admit one's lack of information, whatever one's field may be. The principal need not fear weakening his status by so doing, provided that he set about the task of remedying the situation forthwith. Growth lies in that direction.

Lastly, the strongest position the principal can assume in the school at large is clearly that of intermediary between the specialist in the classroom and the ultimate product of the school. Let us assume that the ultimate aim of secondary education is to help young people to live the good life, whatever the good life may be. Now it is a far cry from the specifics of English, of mathematics, of science, of the industrial arts, and the rest, as they are now taught, to an inculcation of the principles of good living. How, then, can there be any assurance of the latter? How can teachers be helped to bridge this gap, to say nothing of studying the interrelationships of the whole category of secondary subjects which bear upon this fundamental purpose? Articulation, in all of the ramifications of the term, is the present cry in education. Who but the principal can render this essential service? When this interpretation of his function is once held, namely, that he is a specialist in generalization, anomalous as this may seem, opposition to his leadership will largely disappear. This means that he will delegate to others the task of supervising the technicalities of teaching which are unique to the respective subject-matter fields. That such supervising is not now being done, even by department heads where such exist, is a story from another source.

Winning the Teachers' Confidence

But, we hasten to say, even in this conception of the principalship there is no magic whereby teachers will be induced to accept unquestioningly the professional formulations of its incumbent. Indeed, that time should never come. It is only through his good works that the principal can hope to be admitted to the confidence of his teachers. So here we take up the question of what specific things the principal can do to win and hold faith in his leadership. Our list of proposed activities is not exhaustive, but indicative of what a resourceful principal can do. We shall discuss, more or less at length, only one. Here they are:

1. Citation of helpful literature.
2. Inter- and intradepartmental visitation.
3. Interschool visitation.
4. Professionalized teachers' meetings, both general and departmental.
5. Case studies, both of problem pupils and typical and atypical recitations. The latter implies stenographic reports of recitations, including the notations of trained observers upon such items as the questioning process, the distribution of time, and the like.
6. Coöperative scientific experimentation.

We wish it were possible to remove the stigma of triteness from these suggestions by considering them one by one. Instead, you must believe us when we say that, commonplace as they seemingly are on the face of things, when thoughtfully directed such procedures can be made to yield charming results. We speak from

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Mr. Richmond, who became State Superintendent of Public Instruction of Kentucky on January 4, succeeding W. C. Bell, has been actively engaged in schoolwork as teacher, supervisor, and administrator since graduation from college, and has served in numerous school systems in Tennessee, Texas, and Kentucky. His educational service for the past twenty years has been confined to Kentucky, and since 1928 he has been connected with the state education department. Mr. Richmond holds two college degrees. By reason of his broad college training and wide experience in schoolwork gained through years of service in school and college service, he is admirably qualified to assume the arduous duties of state superintendent of public instruction.

experience here. Elsewhere we are on record in regard to the practical workings of some of them.[6] The remainder of this discussion will deal with the last suggestion, namely, coöperative experimentation.

There is a certain type of teachers' problems which lend themselves to experimental investigation. Problems of method are primarily of this kind. As this manuscript is being prepared, several problems of this nature, selected from our files, are before us. For instance, language teachers ask such questions as these:

What is the best method of teaching Latin composition?

How facilitate the learning of Latin vocabularies?

What is the best method of enlarging the pupils' vocabularies?

In teaching Spanish, is it best to use that language entirely in the classroom?

Do students learn the tenses as well by employing them in sentences or is some mechanical order of learning them preferable?

The following problems were submitted by science teachers:

Should the teacher perform the experiments, demonstrating them before the class, or follow the usual laboratory procedure?

Which is more profitable, few experiments in much time done by the students or many experiments in less time done by the teacher?

Research as an Aid

It is plainly evident that the solution of such problems does not lie within the realm of mere opinion. When such queries reach the principal he cannot strike hand to brow and oracularly pronounce a valid conclusion. There is another, and all-round better, way of handling such inquiries as these: it is objective research.

Doubtless the great majority of principals, and their teachers as well, feel that research is the work of specialists. Then, too, both principals and teachers are so completely engrossed with the common run of daily tasks that they see but little opportunity to carry on original investigations. But this is a mistaken attitude. Buckingham has pointed out the rich returns which research in the classroom affords.[7] Thus when one's wheels drag heavily, nothing so revivifies one's drooping spirits as new light thrown into dark places through original investigation. Therefore we hasten to explain a simple method of experimental research suggested by the problems in languages and science just mentioned. For this purpose suppose we select the first inquiry, namely, "What is the best method of teaching Latin composition?" Now this is a knotty question, and unless the principal has actually taught Latin he is likely to be pretty much at sea when confronted with it.

It so happens that the teacher who asked this question had taught, at the time, fourteen years, and was in the fourth year of her tenure in a school of 2,000 pupils. She was one of five teachers of Latin, every one of whom had majored in the subject in college. Further, all of them had secured from 6 to 36 hours of graduate training. Indeed, two had secured the M.A. degree from well-known institutions. The graduate work of most of them had been done in outstanding graduate schools. None of them had been teaching fewer than fourteen years, and one, thirty. The range of their experience in the school in question was from four to fourteen years. Here, then, is a corps of Latin teachers, superior in training and experience, and one of their number has proposed a difficult question.

Utilizing Teaching Experience

What now becomes the duty of the principal? It is incumbent upon him to utilize these teachers. What else can he do that would be half so effective? He should call them together and make the problem a departmental one. As we have previously said, this would be no sign of weakness. On the contrary, it would mark the principal as a capable supervisor, unwilling to overlook his richest source of available help. Since supervision exists for the improvement of instruction, it is a fair question whether the principal can secure increased effectiveness of his teaching force by assuming complete responsibility for every phase of the work or by adopting the policy that his teachers are the ones who best can solve the varied problems of the classroom. He will make it possible for them to attempt the latter — or to coöperate in doing it — by encouraging them to utilize every opportunity to meet a felt need and by permitting them to command the resources of the school in the undertaking. The principal who can do this is too big to stultify his teachers by attempting personal guidance of all teaching activities. Knowledge held by the teachers that they are working *with* not *under* those in authority is a prime essential in the campaign against the professional secretiveness which we discussed in the early pages of this paper.

So we say that the principal should call this group of five Latin teachers together and submit the question about Latin composition to them. Assuming that this problem, in competition with others which affect this same group of teachers, is approved for sustained attention, the teachers can, at the principal's suggestion, effect some sort of organization, say of the committee type, with one of the number as chairman and the principal a member *ex officio*.

From this point the work of the group must necessarily follow two lines. One is the collection of existing information on the question of teaching Latin composition, and the other, the testing of methods.

Testing Methods

We hurry to the second aspect of the undertaking, namely, the testing of methods, dismissing the first by saying that it follows as a

[6] Koch, Harlan C., "Practicable Coöperative Supervision," SCHOOL BOARD JOURNAL, 68:42–43, March, 1924.

[7] Buckingham, B. R., *Research for Teachers* (Newark: Silver Burdett and Company, 1926), pp. 369–390.

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Jefferson County Leads in Bus Transportation

Geo H. Watson, Birmingham, Alabama

BUS OPERATED UNDER CONTRACT. UNIFORM BODIES ARE REQUIRED EVEN ON CONTRACT BUSSES

A system of maintenance which keeps a fleet of 85 school busses on the road every day during the school term has been worked out by the transportation department of the Jefferson county, Alabama, board of education. The plan works so well that it is unnecessary to maintain spare or stand-by busses. Breakdowns are rare and not once in seven years' operation has a single trip been lost due to road failure.

This remarkable result is achieved by keeping the busses in tiptop condition and maintaining a fast road fleet of two repair and one tire trucks. Only once during the year are the busses brought into the central shop in Birmingham. They are then given a thorough overhauling. From the time school opens in the fall until it closes in late spring the busses stay on their routes where they are serviced and repaired by the mobile road crew.

A mechanical force of ten men, including those in the shop and with the repair trucks, make all the inspections and minor repairs, and do the greasing and general overhauling. Defective units are replaced wherever the bus happens to be. In most cases the job is done at the school and finished in time so that the pupils are not delayed in getting home.

The road crews are able to install a complete engine, including the drive system, in five hours. Spare parts are kept for this purpose. Defective engines or parts are brought back to the shop, immediately repaired, and made ready for installation in the next bus that needs such attention. An important part of the road men's duty is to inspect steering gears and brakes twice each month. Chassis are lubricated three times a week.

The tire truck visits each school daily, tests each tire for proper inflation, checks front wheels for alignment and replaces or repairs defective parts. Double-tread tires are purchased, usually one set a year. A few trucks require two sets a year.

The Jefferson county school board uses one make of trucks and this fact alone makes the road-service plan feasible since parts may be interchanged. In addition to the 85 busses, the county also utilizes 29 privately owned busses under contract. Seven individual automobiles complete the system for transporting children back and forth from school.

Uniform bodies are required for all busses, including those under contract. A simple method of figuring depreciation on bodies is used. If it costs more than $150 to repair an old body, it is junked and a new one is installed. Body work is done in an independent Birmingham repair shop since the shop maintained by the board of education is not equipped for this part of the work.

The truck bodies include several features designed by I. H. Wilson, superintendent of transportation. They are low slung and large enough to accommodate as many as 60 children. Entrance is by the side near the front under the watchful eye of the driver. This eliminates accidents which sometimes happened when entrance was by the rear out of sight of the driver.

Student drivers are paid 75 cents a day to operate the county-owned trucks. Contract drivers are paid 15 cents per day per child transported. Each driver must sign for gasoline at pumps located at various truck centers about the county, and each must register mileage with the principal of the school. Gasoline pumps are maintained at some of the schools.

The vehicles operate over principal routes much like street cars. Routes are replotted each year as new pupils enter school or older pupils graduate or advance in years. Movement of families also must be taken into consideration. In order to keep down dead mileage, it is essential that the outbound end of the route is not too far distant from the driver's home. Dead mileage does not total more than 100 miles for the entire fleet.

Directing the affairs of a fleet of busses of this kind requires careful handling to insure economic operation. The Jefferson county board of education has been able to bring its costs down well below the average of the nation as a whole for school transportation. Careful operating records are kept and figures for a typical month show the average operating cost of each bus to be $92. As each bus carries from 40 to 60 children the cost per child is $2 per month or less. During the 1930–31 school year the transportation system was operated at an average cost of $1,112.69 per truck. An average of $222.33 was required per truck for gasoline during the year.

For the month of September, 1931, the report shows mileage of 44,827 aggregated by 85 busses or an average of 527 miles per bus. Fuel mileages are interesting, the average being 8 miles per gallon. Mileage varied from 5 miles to 10 miles per gallon, the lesser mileage being on bad roads.

Jefferson county's operating costs compare favorably with those of the State of Alabama as a whole. The report of 1929–30 shows that the state transported a total of 66,499 children at a total cost of $1,355,630.88, or a per capita cost of $20.38. The average per capita cost for the United States as a whole is given at $23.02, so that Alabama's per capita cost for transportation is $2.64 under the average for the country, and Jefferson county shows an even better figure than does Alabama.

Jefferson county's success in school transportation is attributed to three main factors contributing to economical operation and which

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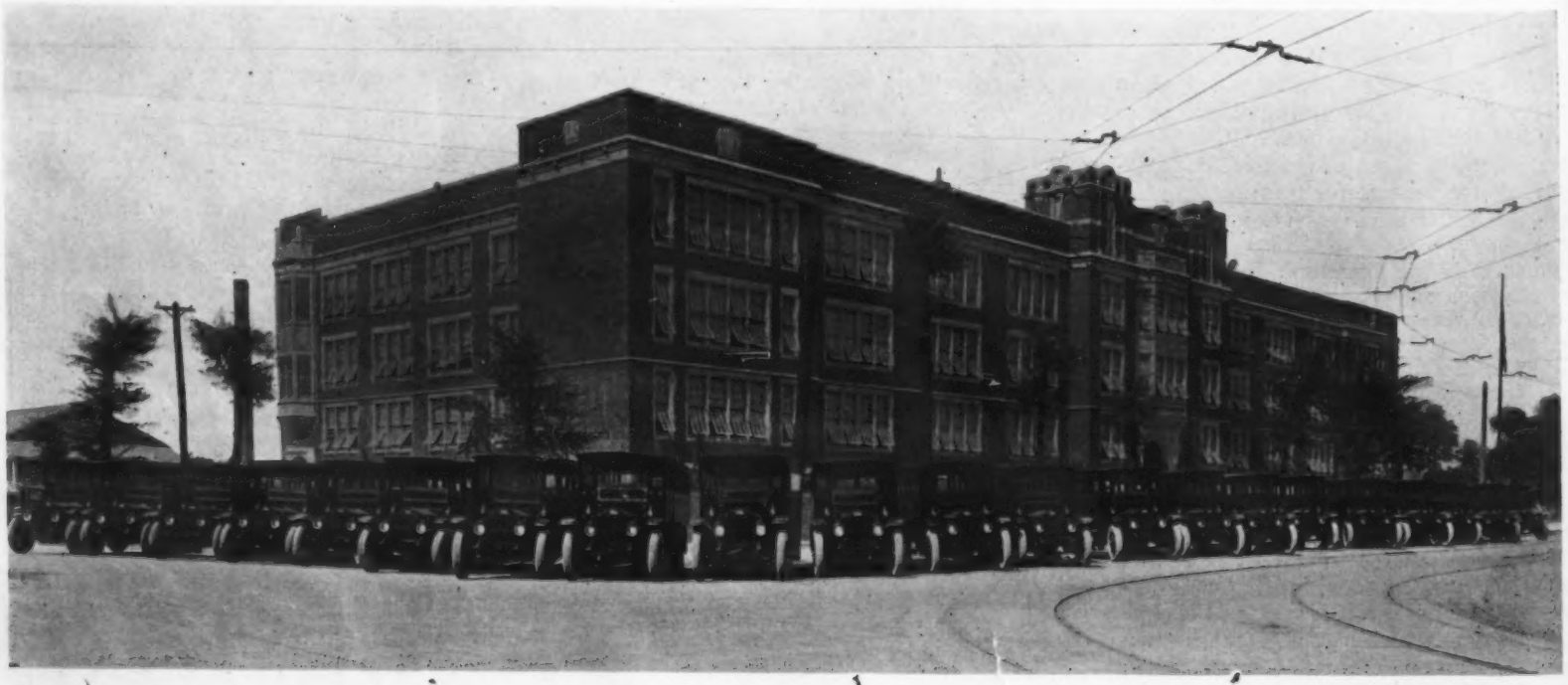

GROUP OF WHITE BUSSES LINED UP IN FRONT OF THE PHILLIPS HIGH SCHOOL, BIRMINGHAM, ALABAMA, WHILE DRIVERS TAKE SAFETY TRAINING JUST PRIOR TO THE OPENING OF SCHOOL

Choosing a Superintendent

Earl W. Anderson, Head of the Appointments Division, Bureau of Educational Research, Ohio State University

Methods used by a number of boards of education in selecting superintendents of schools have been observed carefully by the writer during the past few years. Some methods often permit the choosing of the superintendent to become careless, inefficient, and unnecessarily arduous. Sometimes aggressive candidates and their friends are allowed to interfere seriously.

Frequently no definite plans of procedure are made; the board members passively allow the matter to drift aimlessly along. But now and then a farseeing board of education actively looks after this important duty with remarkable care and foresight. The results of such statesmanlike methods usually amply justify the foresight and the methods used.

When faced with this problem, what are the ways in which a board of education may most successfully go about selecting an able superintendent with the least wear and tear? A procedure for handling the situation should be worked out and agreed upon at least in a rough outline before any candidates are considered or interviewed. Perhaps this plan should be a part of the regular rules and regulations of every board of education, since death or unexpected resignation may require the selection of a new man upon short notice. Thus, preparation for efficient action in filling an emergency vacancy is made at a time when no emergency exists.

Obviously, all board members will not agree as to all the qualifications desired in a superintendent. There are, however, certain minimum requirements to which all will subscribe, and other abilities or background which every member will consider very desirable. These may be stipulated as absolutely minimum specifications and as additional qualities which will be sought for but which are not absolute requirements. If these demands are agreed upon and made known as clearly specified approximate requirements, the board members themselves will be better able to decide whether specific individuals in the local system or outside should be seriously considered.

Ability, Training, and Experience

If the board has asked for recommendations from educational leaders, the minimum demands will aid these people in recommending men to meet their standards. Advertising of the minimum requirements will also keep away a number of personal applicants who cannot fit these specifications; whereas, otherwise they would waste their time and that of board members in interviews.

The requirements should include personal abilities, training, and experience. Every board of education should want a superintendent who can work easily with people and at the same time get things done. This necessitates ability "to sell himself and to deliver." The superintendent of schools who can gain the friendly confidence of other people upon reasonably short acquaintance has a big advantage over one who cannot. This is because a large number of the patrons who have only brief contacts with the superintendent judge his administrative ability almost entirely on the basis of one brief interview or observation.

Hence, personal sales ability is a factor in choosing a superintendent, although it must be remembered that some men with little administrative skill are good initial self-salesmen, whereas other able executives make poor initial impressions but "wear" remarkably well.

The specifications should include the minimum years of experience required of candidates, the types of experience desired, the age, the amount of training necessary, and the marital status if this is a consideration. These specifications would differ somewhat in different communities, and as applied to local candidates or to outsiders.

"Employ a good superintendent and let him run your schools as chief executive," is the sage advice given by an old school-board member to a business acquaintance who came to him from a neighboring town with a story of school-board troubles. The present paper sets up criteria which every school board can use to advantage.—Editor.

For example, a board may be faced with the problem of construction of new buildings, with financial difficulties, or need for revision of the curriculum. These needs will depend considerably upon the qualities of the man leaving the position. The board of education whose superintendent died at the time that an extensive building program had just started, needed a man with rather wide knowledge of school-building problems. In another system, the superintendent had been so much of a "good fellow" that he had let discipline and many of the minor details of the organization slip. This board wanted his successor to be a man who would see that things were put in proper order. Quite often one able in finding means for cutting down expenses without seriously damaging the efficiency of the school is sought, whereas now and then a school system that has been rather thoroughly overhauled in such a manner as to leave a number of "sore" spots needs a superintendent who can smooth out the difficulties and keep the improvements in operation while building up the morale of the staff.

Fixing Unwise Stipulations

A board of education in a community of 5,000 recently stipulated that it would consider only men over 40 years of age who were experienced in school administration in communities of at least 2,500 population. High-school principals need not apply. In this case the local principal had been seriously considered by the board but was refused the position. Hence, it was deemed essential that the successful candidate be older and more experienced than was the principal. These seemed wise stipulations under the circumstances. Their announcement kept away a number of candidates who could not have qualified, and permitted the recommending agencies to be of greater service in their recommendations to the school board.

A school board in a city of 20,000 announced that it would consider only men holding master's degrees who had been superintendents of schools in cities of at least 15,000 population. They probably felt that one who had not had charge of a school at least three fourths as large as theirs would not understand the problems of their school system. A considerable number of teachers in this system held master's degrees and no doubt the board deemed that the superintendent should not be less well trained than many of the teachers.

A third board of education refused to consider any candidate who was then employed in a larger school than theirs at a higher salary than they could pay. There is some question whether this stipulation was a wise one, since good men are sometimes willing to consider, under certain circumstances, salaries that are lower than those at which they last worked. Superintendents are sometimes dropped from positions for political reasons and for causes beyond their control.

It would be especially demoralizing to the profession and would definitely reduce the opportunities of boards of education if they absolutely refused any man who had lost out in a former position, without regard to reasons for his dismissal. At the same time, if other things are equal, a man who has never lost a position is probably a better risk than the one who has. But other things are seldom equal and there are many exceptions to this rule.

Promoting Local Talent

If the school system is quite efficient, there are many arguments for promoting someone from within the organization to the superintendency whenever a vacancy arises. In fact, if an assistant or understudy is already on the staff, he can be moved up with a minimum of readjustment all around. If the high-school principal acts as assistant superintendent, he may adequately fill a superintendency upon a reasonably short notice. Those already in the system know the local situation much better than can anyone from the outside and may much more easily avoid difficulties which may beset the outsider.

If, however, the school system has many weaknesses and needs a partial or complete rejuvenation, a newcomer, free from indoctrinations gained within the system and from problems of working with associates who were formerly on an equal level with him, may sometimes do a much better piece of work and secure more rapid and more hearty coöperation within the schools than can one moved up in the staff.

When the vacancy occurs in the superintendency the board members should seriously consider every possible man within the local system who might qualify for the superintendency. The matter of promotion of one from the inside should be definitely settled before outsiders are considered. Then those within the system will give the outsider who is elected much more cordial coöperation than they would if they felt that he was an active candidate against them for the position. It also removes embarrassment for the outsider in discussing the situation with the members of the local staff if he feels that he is not in competition with them.

In choosing a superintendent from outside the local school system, the school board may either (1) choose only from among those who apply, (2) actively search for the best possible man available, or (3) consider applicants and at the same time search carefully for good men who are not applicants. If only those who apply are considered, a number of well-qualified men who would take the position are entirely overlooked. These men will not solicit positions. Those who desire their services must seek them out. This attitude comes about partly because many boards of education resent their superintendents being active applicants for other positions.

Discovering the Desired Man

An Ohio board of education recently announced that it would consider no one for the superintendency who applied directly. This meant that they intended to seek their own men through various sources of reference and would not be bothered with any who came as active candidates soliciting the position. This policy may relieve the board of a great deal of interviewing of candidates, but now and then an outstanding man may not be recommended by the agencies approached by school boards and would be entirely overlooked if direct applicants were shut out.

This is especially true in the smaller administrative positions if the applicant happens to come from some other state. However, if all ap-

plicants are to be interviewed, some means should be set up to prevent too much scattering of the energies of the board members in the consideration of unqualified candidates that they leave time and energy sufficient for carefully considering all possible phases of the abilities of those who are well qualified for the position.

In these days of increasing numerous applicants, the board members have ordinarily hardly realized their problem in filling a vacant superintendency, let alone set up procedures, before they are besieged by numerous, persistently aggressive candidates of all types of ability. By far the most common method of caring for these applicants is for all members of the board to see all candidates regardless of their ability, training, experience, or number and then to meet as a group for a series of eliminations until they get down to one, two, three or more men from whom the final selection is made. In such cases there is little or no attempt to get recommendations from any sources.

Interviewing Numerous Candidates

At first the individual board member rather enjoys the sense of power and popularity which is suddenly his. This novelty soon wears off, however, after he interviews numerous candidates and their active friends. He gets woefully tired of the whole business. The problem consumes an interminable amount of his time. It interferes with his business and with his happiness. He wants to get the whole matter settled — to get the candidates off his doorstep and out of his office. This mental state hampers him in determining who is the best man for the position, and any good self-salesman who is around at the time that most of the board members are thus tired out may get the position, although better men have been overlooked or forgotten in the large number interviewed.

A surprising number of men who know they have only very slight chances of being considered for a superintendency will apply personally "on the chance" that they might get the position. These men who should not be of any interest to board members tend to wear them out in interviewing. If the board members will set up clearly the minimum specifications and refuse to see anyone who does not fully meet these requirements, they may save themselves a lot of useless interviewing and thereby concentrate their energies in considering those whose abilities should be carefully investigated.

They might well delegate to the clerk the responsibility of the first elimination. This man should see all applicants and frankly tell some that they cannot be interviewed further. If he has good judgment, he might even go beyond this and limit the number who are to see the other board members down to not more than a dozen. The other board members could refuse to see candidates who did not have the approval of the clerk.

Methods of Selection

Although somebody on the board might well sift out from the direct applicants the few who seem best qualified, the board should get its major returns in finding good men for the position through directly seeking for the names of desirable candidates. Various procedures may be used in such quests.

In schools under county supervision the county superintendent should be of great service throughout. The superintendent who is vacating the position should certainly be consulted unless he is definitely at loggerheads with the board members. Some boards of education wisely request recommendations for candidates from college deans, professors, presidents, or directors of placement bureaus; from superintendents of schools in larger cities, from reliable commercial teachers' agencies, and from the state department of education.

From each of these sources they should secure the names of one or two rather high-grade men. The same names will likely appear in several lists. Information concerning the experience, training, and success of each man, and reasons why he will fit the specific position, should be sought from those who recommend. The board, or a committee therefrom, should go over these recommendations and ask the few who seem best qualified to come in for interviews.

If the expense is considerable, this should be borne by the school district. In searching for a man to supervise a budget running into many thousands of dollars, a few dollars of expense should not keep an able man out of consideration. Quite often a committee on the employment of a superintendent does all of the preliminary work of searching for desirable men and all interviewing of applicants. This committee selects from three to six of the best prospects who are then suggested to the rest of the board.

The other board members then limit their consideration to a few men and thus do a more thorough and more analytical job in making their final decision. A few board members do not like this system because it does not give them enough of a hand in the selection. However, busy men can give the district more benefit of their selecting abilities if they interview less than ten men instead of a hundred or more.

Narrowing the List of Prospects

When the board or its committee has narrowed the list of prospects to the names of a few candidates who seem to have the personal qualifications desired, the next step seems to be to search more fully into the history of the men. It is often difficult to find the truth. The best sources for getting facts about candidates are probably the same ones to whom the board has already gone for recommendations.

A committee certainly should visit the communities last served by the men who are being seriously considered. It pays to spend a great deal of time in inquiring not only of the local board members but also of the townspeople and the teachers as to how each man has succeeded in his position. The candidate should know that the committee is visiting the community and he normally will welcome its visit.

The committee should see not only people whom the superintendent suggests, but at least part of the time should be spent in inquiring from hit-and-miss sources in the community. As a general rule, the man who has succeeded in one position will succeed in another. However, the board may well check regarding the success in several previous positions.

Checking Last Position Held

In checking up on the last position held, factors investigated should include the candidate's community and professional leadership, his ability in the matter of school buildings and school finance, his success in raising standards, in revising the curriculum, and in building the general morale of the school community. Specific instances of the man's constructive leadership should be sought rather than general statements. Especially in the smaller districts, the position the wife has in the community and her ability to help him, or at least not hinder him, should be considered. A trouble-making wife may make administrative success impossible for her husband.

It is surprising how few boards of education secure the opinions of teachers and principals as to the qualifications of a prospective superintendent. Since the superintendent's success will depend to a considerable extent upon satisfactory dealings with the teachers, the judgments of these teachers should be considered. Teachers may sometimes get a line on a superintendent which one would obtain in no other way; hence, teachers with whom he has worked should be consulted. If a man works happily and effectively with teachers in one community, he probably will in another.

Thorough investigation of the abilities and background of the three or four candidates under final consideration often results in one man's being unanimously agreed upon by the board members. Now and then the members become deadlocked in their choice of candidates or a minority is strongly opposed to the choice of the majority.

If a school superintendent is elected by a bare majority vote, and assumes his duties with some of the board members actively opposed to him, he is likely to be definitely handicapped in performing the duties of his office and usually he becomes the issue at subsequent school-board elections.

In most cases it is much safer for the superintendent and better for the efficiency and morale of the schools to secure a man who begins his duties with the whole-hearted support of the entire board and of the teaching staff. It is usually possible to find such a man. Then, and then only, can the full energies of all concerned be spent in the improvement of the schools.

School Transportation in New York

"The State of New York paid in quotas to the transportation service of the public schools in 1928, the sum of $263,000; in 1929–30, $390,000; in 1930–31, $827,000, and the estimate for 1931–32 is $1,054,000."

This statement was made by Charles A. Brind, Jr., of the law division of the state education department at the recent state school-board convention. The state covers one half of the cost of transportation and the local district the other half. By way of discussing the subject, Mr. Brind added:

"It is amazing to discover how many parents are commencing to feel that they have a vested right to transportation of their children. Parents move from one place to another and place themselves many miles from high school then write letters to the department demanding that high-school transportation be immediately provided for their children. Other parents expect to be paid to provide transportation for their children. If we wish to keep the good things in this law we must eliminate as far as possible the bad features of administration.

"It is wholly wrong in my judgment to give parents the idea that they are entitled to payment for transportation. Parents have as much an obligation to provide transportation if they elect to live at a distance from the school as they have to provide food and clothing. It seems to me that there is no more efficient system of injecting the dole into this state than to pay parents to transport their children. The department does not approve of all of this practice and will not approve contracts which contemplate it. We also find that many members of school boards and trustees through subterfuge are attempting to benefit through this law. It is, of course, unlawful for a trustee to secure any financial benefit through any contract that he makes.

"Our greatest trouble has been in endeavoring to keep the contract cost within reason. We had one case where it was proposed to spend $1,400 to transport one pupil. The distance was

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School Board Heads Who Make History in American Education

The contribution made by leaders in the field of school admanistration was never more intense and at the same time more gratifying than it is at the present time. Those who head the board of education, though, are usually identified in an intimate way with the economic, civic, and social activities of their respective communities.

Thus, they are also exposed to the influences which at times batter their opposition to the cause of popular education in the guise of economy and retrenchments which are retrogressive in spirit and harmful in fact. The country must, in the stress and storm of a disturbed condition, look to these leaders for that calm steadfastness and guidance so essential to the school administrative service.

The biographical sketches here presented were in every instance prepared by writers who were in close contact with their subjects. They have lifted into view the true merits of the persons here discussed and thus provided a series of character studies well worthy the attention of the American school public.

HARRY V. MEISSNER

President, Board of School Directors, Milwaukee

Mr. Meissner was born in Milwaukee on November 24, 1890, and attended the public schools there. He took the full four-year course at the University of Wisconsin, acquiring his A.B. degree in 1912, and LL.B. degree in 1914.

He has been practicing law in Milwaukee ever since that time, with the exception of two

HARRY V. MEISSNER
President, Board of School Directors, Milwaukee, Wisconsin.

years which he spent in the army during the world war with the rank of captain of infantry. At high school and at the university he repeatedly represented his class on the debating teams, during his freshman and sophomore years.

He has at all times been active in public affairs. He is now a member of the Community Fund Organization, a director and assistant treasurer of the Milwaukee Chapter of the Red Cross, and vice-president of Temple Emanu-El. He has always been keenly interested in children and for that reason seems to get great satisfaction from his work on the school board. While law is his vocation, school-board work appears to be his avocation, with golf and bridge thrown in for good measure.

His service on the board bids fair to add greatly to the richness of life possible for non-athletic students in the schools. His keen interest in debating, combined with his faith in school humanity, encouraged to lay hold upon life in manifold ways, without a compulsory ukase in any way, has already greatly increased student participation in forensic activities.

Mr. Meissner manifests the same real flair for factual accuracy and precedural orderliness in public service as he always did in student debates. His rulings have never been reversed. They frequently impede measures he favors or advance those he disapproves. They are utterly impersonal and withstand subsequent cold-blooded scientific analysis.

One passage in Mr. Meissner's message to his board of October 6, 1931, has recently attracted the attention of professors of law and politics. Copies are in demand for classes in school administration. It is so basic in its implications and so indispensable to the proper understanding of their duties by newly elected board members that it is quoted here as he delivered it:

"Our administrative functions are so special and so different from those of the ordinary political body that it is really necessary through experience on the board to prepare to properly perform them. The early years of service on the board might well be recognized as a training school for valuable future service to our educational system. We function as a board of school directors only when in session. No member of the board should attempt to function as the board or for the board. Our hired executives are paid to do all the interim business and theirs is the full responsibility to function for the board when it is not in session. If they do not execute our formal enactments, the cure is certainly not to be found in interference by individual board members. That way lies chaos for them and for us. The board functions only when in session."

E. LELAND TAYLOR

President, Board of Education, Louisville, Kentucky

On August 25, 1922, Mr. Taylor was appointed to fill a vacancy created in the board of education, and was elected to this position in November of the same year. He became president in 1926.

During Mr. Taylor's nine years of service on the board of education he has had active experience in every phase of the work of a member of such a board. His own utterances backed by his actions give the best picture of the kind of board member he has proved himself to be. He believes that the members should give their services because of their interest in education. In Louisville the board members receive no financial compensation. He further maintains that the board of education should be non-political. It is interesting to note that over a period of years the Louisville board of education has been predominantly Democratic at the same time that the city has been Republican. He is firmly convinced that one of the major functions of the board of education is to select a competent superintendent and then to back this executive in carrying on the work for which his training and experience have particularly fitted him.

He believes that the superintendent should be given a great degree of freedom of action unhampered by the personal desires of the members of the board of education or other interested parties. With such sound philosophy guiding the man, is there any wonder why the citizens of Louisville have chosen repeatedly to retain him as a member of the board of education?

Mr. Taylor is a graduate of the Louisville high school and of the University of Virginia. From 1909, the time he finished his college work, until spring, 1918, when he entered the army as lieutenant in the artillery, he was a practicing attorney in Louisville. At the close of the world war he assumed the management of his uncle's business which was under the firm name of Wright and Taylor. In 1922 he was president of the Louisville Real Estate Board. He is now a member of the Pendennis Club and the Louisville Country Club, two of the outstanding clubs in Louisville. He is also a member of an

E. LELAND TAYLOR
President, Board of Education, Louisville, Kentucky.

entirely different type of club, the Pierian Club, a conversation group where topics from various fields of interest are presented and discussed. Mr. Taylor was born in Knoxville, Tennessee, in 1885.

IRA W. COBURN

President, Board of Education, San Francisco, Calif.

San Francisco may be congratulated in having Ira W. Coburn as president of the board of education, who by training, experience, and educational aspirations is eminently fitted for the position. He was born in Brooklyn, New York, later moving to Chicago, where he received his elementary education. Thence to Des Moines, Iowa, where his education received further impetus in the schools of that city. In 1885, heeding Horace Greeley's famous edit, he came to San Francisco. Mr. Coburn is one of San Francisco's largest contractors and builders. The Curran Theater, Plaza Hotel, Temple Beth Israel, Scottish Rite Auditorium are among the buildings he has erected during his career.

Members of San Francisco's board of education are appointed by the mayor, subject to confirmation by the electorate. Mr. Coburn was first appointed to the City Planning Commission by Mayor (now governor) Rolph in 1924. His outstanding work on this important committee bespoke his value as a member of the board of education, to which he was appointed in 1925.

Mr. Coburn is now serving his second term as president of the board of education. His knowledge of buildings and construction have secured for San Francisco, educational plants second to none in the country. The type of buildings erected since 1906 are witness to his

contributions to the cause of education in this city.

Perhaps the outstanding achievement of his administration has been the initiation and completion of a complete set of junior-high-school buildings, whose prototype would be difficult

IRA W. COBURN
President, Board of Education,
San Francisco, California

to duplicate in any other city of the country. By virtue of his position as president of the board of education, he is also a director of the playground commission. New schools are so located that playground areas are located adjacent to the schools of San Francisco.

Mr. Coburn is a member of the Chamber of Commerce, Associated Charities, director of the Community Chest, and civic organizations — all testimony of his value as a citizen.

HARRY H. BASKERVILLE
President, Board of Education, Los Angeles, Calif.

With a background of training in public cost accounting and experience in administrative consulting work, Mr. Baskerville is exceptionally fitted at this time to guide the financial policies of a school system. His conception of the school administration is so expressed in the following language:

"The personnel of the school system are trustees. Theirs is a fiduciary responsibility. The board of education is primarily a policy-determining body, the superintendent and his staff being administrators. It is not only incumbent upon them to determine the nature and extent of educational activities in terms of the educational requirements of the child, but there also must be proper consideration in terms of the normal budget of the average home. Education is not measured by its cost, but that does not preclude the necessity of accurately measuring that cost to the end that the proper relation between the magnitude of the cost and the taxpayer's ability to pay may be maintained."

He was elected to the presidency of the Los Angeles board of education last July, after having served more than two years as member and chairman of the finance committee.

HARRY H. BASKERVILLE
President, Board of Education,
Los Angeles, California

WILLIAM J. SHRODER
President, Cincinnati Board of Education

The Cincinnati schools have been fortunate in the leadership of the board of education for the past two decades. The late Dr. John M. Withrow, president of the board for many years, led in the development of the building program by which the physical plant has been largely made over, and also shared in the extension of the work of the schools into new fields of service. Upon Dr. Withrow's retirement from the board in 1924, Mr. William J. Shroder was elected to succeed him. In January, 1926, Mr. Shroder was elected to the presidency, which he has occupied continuously since.

WILLIAM J. SHRODER
President, Board of Education,
Cincinnati, Ohio

Mr. Shroder is typical of the fine citizen who regards membership upon the board of education as an opportunity for important civic service. Through the whole period of his membership he has evidenced a constant and large concern in the board's affairs, devoted to its work time and energy without stint. A graduate of a Cincinnati public high school, of Yale, and of the Harvard Law School, Mr. Shroder retired in early middle age from an active and very successful practice at the bar to devote himself to voluntary service without compensation as chairman of the Executive Budget Committee of the Cincinnati Community Chest. This has enabled Mr. Shroder to bring to his service on the board of education a point of view of great significance to the schools, as well as an intimate understanding of all the agencies and interests concerned in community welfare in the city which can be related to the schools.

An open-mindedness to progress, as well as a fine judgment of persons and an exceptional ability in forecasting possible outcomes, are added values in Mr. Shroder's service on the board. Skill in dealing with people and a competent leadership of conference and discussion enable him to be a highly effective presiding officer. Underlying all Mr. Shroder's thought is a realization of the fundamental significance of public education and an appreciation of its value in the community, which causes him to recognize always the importance of the schools and to stand steadily for the fundamental value of the work they are doing.

W. PERCY McDONALD
Chairman, Shelby County Board of Education, Memphis, Tenn.

Mr. McDonald became a member of the board in September, 1930, and at the same time was elected as its chairman. Since that time he has brought about some noteworthy improvements in the administrative departments.

W. PERCY McDONALD
Chairman, Shelby County Board of Education,
Memphis, Tennessee

The service of the county school system in operating 26 school busses was reorganized during his administration so as to insure greater efficiency and safety. The financial affairs of the board were so managed that no salary cuts or shortening of the school term had to be engaged in. A contract for a new elementary school to be erected at Whitehaven, Tennessee, was awarded at a cost of $94,000. The total cost will be $125,000.

Mr. McDonald is a lawyer by profession. After graduation from the University of Mississippi he attended the University of Virginia where he took his degree of law. He served over seas during the war and after the Armistice he attended for eight months the law school of Paris, France. He was elected Post Commander of the Memphis Post of the American Legion. Among his civic services should be mentioned the fact that he served as general chairman of the Memphis Community Fund in its annual drive for funds.

♦ Denver, Colo. The mill levy for the Denver schools has decreased from 13.8 for 1930-31 to 13.6 for 1931-32. At the same time, there has been a drop in the assessed valuation, from $464,482,500 in 1931, to $443,901,430 in 1931-32.

While the assessed valuation is approximately $20,000,000 lower than a year ago, enrollment figures of this school year in contrast with those of a year ago, show the greatest percentage of increase in a period of ten years. The total average daily membership in all of the schools in December, 1931, showed an increase of 2,031 over that of December, 1930, which was sufficient to fill two large elementary schools, or a high school.

Educational Rank of the States, 1930

Frank M. Phillips, Washington, D. C.

(Continued from February)

Some may wish to compare state indexes upon the basis of the portion of the population which is colored. The following 14 states have a colored population in excess of 10 per cent of the total population:

State	Per Cent Colored	Index	State	Per Cent Colored	Index
Mississippi	50.24	42.33	Arkansas	28.50	42.46
South Carolina ..	45.65	41.92	Dist. Columbia...	27.13	89.60
Louisiana	36.94	48.26	Virginia	26.85	45.18
Georgia	36.83	38.75	Tennessee	18.25	43.73
Alabama	35.70	42.73	Maryland	16.94	64.25
Florida	29.41	51.54	Texas	14.68	53.43
North Carolina ..	28.96	48.84	Delaware	13.68	73.70

By omitting Delaware, the District of Columbia, Florida, Maryland, and Texas nine states remain which have a rural population in excess of 65 per cent of the total, and a colored population in excess of 18 per cent of the total.

The following five states have more than one-fifth of their population made up of foreign-born whites:

State	Per Cent Foreign-Born Whites	Index	State	Per Cent Foreign-Born Whites	Index
New York	25.35	89.77	Connecticut	23.83	73.70
Rhode Island	24.83	66.10	New Jersey	20.90	82.82
Massachusetts ...	24.82	73.70			

Besides having a large number of foreign born in the general population, each state has more than 70 per cent of its population in urban territory.

TABLE IV. Educational Rank of States, Phillips Method, 1930

State	Percentage of Illiteracy Ten Years of Age and Over 1930	Ratio of Children in Average Daily Attendance to Number 5–17 Years, Incl.	Per Cent of Enrollment in High School	Average Number of Days Attended by Each Child Enrolled	Average Number of Days Schools Were in Session	Ratio of Students Taking Teacher-Training Courses to Teachers Employed	Percentage of High-School Graduates Continuing Education	Total Cost Excluding Salaries per Pupil in Average Daily Attendance	Average Annual Salary of Teachers, Principals, and Supervisors	Total Amount Expended per Child of School Age	Sum of Ranks	Rank of Sums
Alabama	45	46	47	44	44	27	18	44	46	46	407	46
Arizona	44	34	35	37	24	3	22	8	8	12	227	27
Arkansas	38	43	46	47	47	44	15	48	45	48	421	47
California ...	21	2	5	12	9	32	44	5	4	3	137	4
Colorado	25	13	28	33	10	30	28	10	17	8	202	18
Connecticut ..	33	25	23	77	66	43	31	11	6	17	202	19
Delaware	31	35	30	15	15	12	2	9	13	13	175	11
District of Columbia ..	11	8	15	26	21	47	3	2	2	2	137	5
Florida	39	20	38	43	41	45	7	39	43	37	352	41
Georgia	42	41	42	45	46	23	43	49	49	49	429	48
Idaho	4	12	4	34	28	5	39	30	29	26	211	21
Illinois	20	24	7	2	2	19	32	14	10	18	148	7
Indiana	13	5	6	13	31	1	29	29	20	21	168	10
Iowa	1	9	10	23	26	38	40	17	28	10	202	17
Kansas	8	7	8	29	33	33	30	20	27	16	211	22
Kentucky ...	36	47	43	38	34	25	5	42	34	44	348	40
Louisiana ...	48	48	41	39	42	10	37	40	38	41	384	44
Maine	22	18	19	5	18	13	33	35	37	34	234	29
Maryland ...	29	45	34	9	5	20	45	26	15	33	261	31
Massachusetts.	27	30	17	8	7	6	46	13	5	19	178	12
Michigan	16	6	27	3	32	11	13	12	9	9	138	6
Minnesota ...	9	22	24	24	17	41	23	22	25	23	230	28
Mississippi ...	46	31	49	49	49	21	9	47	48	43	382	43
Missouri	18	23	16	6	23	17	17	33	24	31	208	20
Montana	14	15	13	16	14	4	14	7	26	7	130	2
Nebraska	5	16	9	32	20	28	49	27	31	25	242	30
Nevada	32	1	11	22	30	39	25	3	16	1	180	13
N. Hampshire	23	40	20	10	19	9	12	28	22	30	213	23
New Jersey ..	30	27	33	11	3	2	48	4	3	5	166	9
New Mexico.	47	42	39	36	29	35	16	34	30	35	343	39
New York ...	28	29	18	1	4	46	1	1	1	4	133	3
North Carolina	43	32	40	42	40	18	4	41	40	40	340	38
North Dakota	10	14	26	27	37	24	38	25	42	22	265	32
Ohio	19	17	12	4	11	15	35	16	7	14	150	8
Oklahoma ...	24	31	31	48	45	26	24	38	33	38	338	37
Oregon	2	10	3	31	25	31	42	19	12	15	190	14
Pennsylvania .	26	33	32	14	8	8	19	23	11	28	202	16
Rhode Island.	35	49	36	17	1	48	36	15	19	29	285	34
South Carolina	49	44	45	46	48	49	8	46	47	47	429	49
South Dakota.	7	19	21	21	16	36	21	24	36	24	225	26
Tennessee ...	40	37	48	40	39	22	11	45	44	45	371	42
Texas	37	38	29	41	43	29	6	37	39	39	338	36
Utah	6	3	2	19	27	40	26	31	21	20	195	15
Vermont	17	26	25	18	35	37	27	32	35	32	284	33
Virginia	41	39	44	35	36	34	41	43	41	42	396	45
Washington ..	3	4	1	28	13	7	20	18	14	11	119	1
West Virginia.	34	28	37	25	38	14	10	36	32	36	290	35
Wisconsin ...	15	36	22	20	12	16	34	21	18	27	221	25
Wyoming ...	12	11	14	30	22	42	47	6	23	6	213	24

Computations made upon the basis of the data included in Tables I and II are used to rank the states as shown in Table IV. By the Phillips method, Washington is given first place; Montana, second; New York, third; California, fourth; the District of Columbia, fifth; Michigan, sixth; Illinois, seventh; Ohio, eighth; New Jersey, ninth; and Indiana, tenth. Seven of these are included among the first ten ranked by the Ayres method. Thirty-four states do not differ by more than 4 points under both methods of ranking states educationally.

Iowa ranks first in low rate of illiteracy as usual; Nevada, first in school attendance, and in amount expended per child of school age; Washington, first in high-school enrollment; New York, first in number of days attended, per cent of high-school graduates continuing their education, total cost per pupil, and in the annual salary of teachers; Rhode Island, first in length of school year; and Indiana first in teacher training. Although New York ranks first in four items, it ranks low enough in three others to cheat itself out of both first and second places by this method.

TABLE V. Ayres Index for Certain Years, by States, 1900–1930

State	1900*	1910	1918	1920	1922	1924	1930
United States	33.68	43.55	44.34	44.73	57.15	59.51	65.46
Alabama	19.50	27.43	28.06	29.64	36.37	35.64	42.73
Arizona	30.17	47.18	55.48	55.03	67.75	66.74	72.41
Arkansas	20.99	27.15	28.13	31.24	38.26	34.91	42.46
California	43.80	62.66	60.56	61.88	85.09	94.62	84.58
Colorado	41.59	50.78	50.64	50.80	62.72	68.55	71.84
Connecticut	43.13	50.67	51.75	53.16	62.44	65.95	73.21
Delaware	44.90	38.96	37.85	43.16	55.06	58.73	73.70
District of Columbia.....	30.10	58.17	54.81	53.48	63.72	66.11	89.60
Florida	22.45	30.29	33.40	37.12	42.75	46.72	51.54
Georgia	21.54	29.58	30.08	29.82	36.33	37.68	38.75
Idaho	29.25	46.00	49.83	55.54	62.05	58.71	63.62
Illinois	37.18	51.43	48.84	49.10	63.90	65.74	74.80
Indiana	36.33	47.19	51.08	51.74	70.29	64.33	68.67
Iowa	34.49	42.34	53.25	49.72	65.80	61.41	68.98
Kansas.	31.54	44.17	48.09	49.63	60.33	61.50	67.28
Kentucky	25.23	31.10	31.69	27.86	36.11	40.99	45.57
Louisiana	21.55	31.79	30.13	34.30	42.89	45.03	48.26
Maine	33.70	40.45	42.85	44.23	53.25	56.14	59.69
Maryland	49.52	39.38	37.88	38.74	52.87—	58.87	64.25
Massachusetts	35.49	58.04	52.60	52.58	64.81	67.42	73.70
Michigan	35.60	46.34	52.17	51.13	68.04	70.09	71.28
Minnesota	35.41	45.84	49.96	49.92	64.20	67.27	66.43
Mississippi	20.89	26.75	28.16	29.08	35.08	35.30	42.33
Missouri	31.65	39.76	43.44	45.27	54.87	55.78	62.79
Montana	39.51	55.42	63.00	56.14	67.17	58.02	72.61
Nebraska	36.11	45.13	49.15	48.26	64.24	59.42	62.58
Nevada	42.37	58.40	50.74	60.55	69.55	77.29	88.99
New Hampshire	33.82	43.43	47.44	45.97	55.52	56.48	64.31
New Jersey	40.26	56.35	55.96	55.08	71.42	75.60	82.82
New Mexico	24.86	31.79	44.88	41.66	51.81	48.39	56.04
New York	46.57	53.48	51.35	52.14	69.70	77.06	89.77
North Carolina	17.51	26.06	28.33	31.72	39.05	42.81	48.84
North Dakota	34.83	43.81	49.62	48.30	56.04	58.91	60.07
Ohio	37.34	50.02	51.56	51.84	70.98	71.28	74.77
Oklahoma	23.27	36.89	38.86	41.71	49.95	51.41	52.19
Oregon	32.04	49.35	50.49	49.81	61.81	65.90	71.31
Pennsylvania	36.97	48.72	49.49	44.31	57.43	62.49	67.66
Rhode Island	43.05	52.26	48.74	45.28	60.23	61.51	66.10
South Carolina	20.75	25.21	26.52	30.79	34.99	35.15	41.92
South Dakota	33.99	43.85	47.01	49.54	61.88	61.69	61.34
Tennessee	22.23	30.00	32.16	32.40	37.68	38.97	43.73
Texas	24.43	33.09	36.64	35.90	45.67	46.57	53.43
Utah	37.51	52.57	52.66	55.09	63.37	61.07	69.84
Vermont	21.69	43.04	45.58	47.63	55.44	53.06	60.41
Virginia	35.44	30.28	31.90	32.91	43.92	42.09	45.18
Washington	37.14	63.44	53.94	55.57	70.64	67.34	73.98
West Virginia	34.31	33.57	33.88	36.07	44.77	50.06	53.28
Wisconsin	27.07	44.31	45.04	46.87	60.02	62.84	65.23
Wyoming	31.91	43.91	48.90	51.82	64.00	67.85	71.16

*An index number for state school systems, Ayres, p. 33, Russell Sage Foundation Educational Monograph.

Table V can be used to show progress over the past 30 years. For the United States, the 1930 index is about twice as high as the 1900 index. Were the financial items not deflated for 1930, the index would be 86.69 as compared with an index of similar content of 33.68 in 1900. The 1930 index is more than double the 1900 index in Alabama, Arizona, Arkansas, District of Columbia, Florida, Idaho, Illinois, Kansas, Louisiana, Massachusetts, Michigan, Mississippi, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, South Carolina, Texas, Vermont, Wisconsin, and Wyoming. The greatest rate of increase is in the District of Columbia, the next in North Carolina, and the third in Vermont.

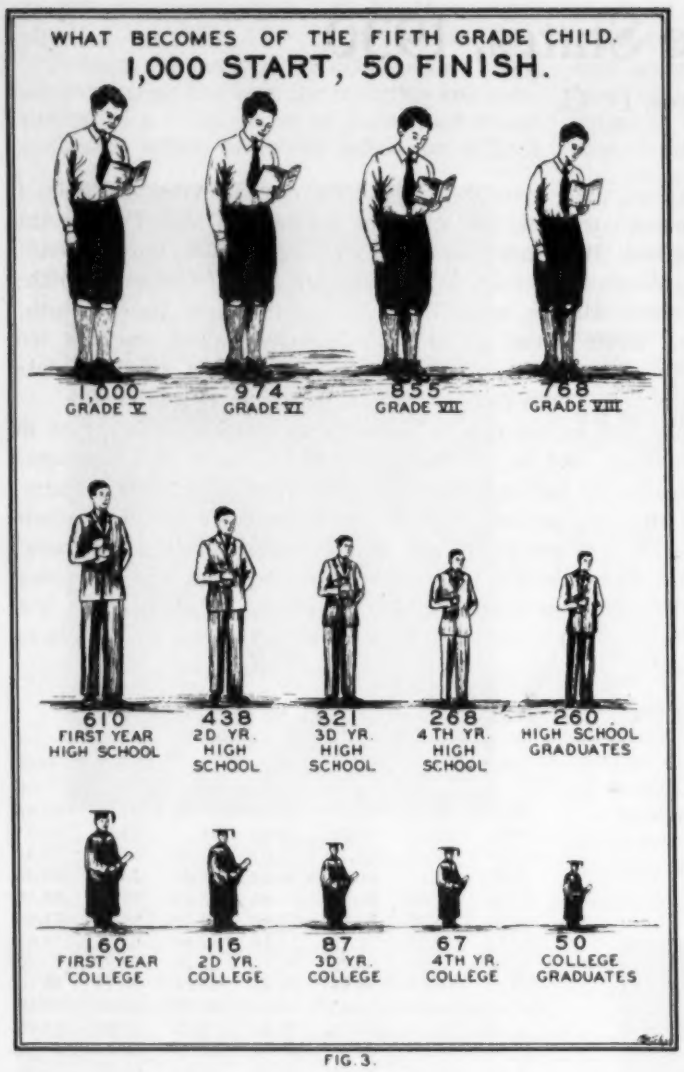

WHAT BECOMES OF THE FIFTH GRADE CHILD.
1,000 START, 50 FINISH.
1,000 GRADE V
974 GRADE VI
855 GRADE VII
768 GRADE VIII
610 FIRST YEAR HIGH SCHOOL
438 2D YR. HIGH SCHOOL
321 3D YR. HIGH SCHOOL
268 4TH YR. HIGH SCHOOL
260 HIGH SCHOOL GRADUATES
160 FIRST YEAR COLLEGE
116 2D YR. COLLEGE
87 3D YR. COLLEGE
67 4TH YR. COLLEGE
50 COLLEGE GRADUATES

FIG. 3.

Table VI contains a review of the educational rank of states by both methods for certain years between 1910 and 1930, inclusive. By the Ayers method, California has held either first or second place for the entire time, excluding the year 1930. By the Phillips method, Washington has held either first or second place during the entire period. States ranking in the upper one fourth, that is, better than thirteenth place, for the entire period are California, Massachusetts, New Jersey, and Washington, by the Ayers method; and California, the District of Columbia, Michigan, and Washington, by the Phillips method.

It would be quite unfair to leave the discussion of state ranks at this point without showing some of the advantages, which certain states have, which help them to maintain a high rank educationally, and some of the disadvantages other states have which make the problem of "keeping up with the Jones's" extremely difficult if not impossible. There lives in the District of Columbia practically four (3.88) adults for every child of school age. Four adults have the responsibility of supporting one child of school age, and of sending him to school, provided he takes advantage of the educational opportunities offered in that community. In California, 3.39 adults; in Nevada, 3.20 adults; and in New York, 2.92 adults are on hand to provide educational facilities for each child of school age. Contrast this with conditions in South Carolina where 1.38 adults have the responsibility of supporting a child of school age, and of providing him with educational opportunities. In North Carolina, 1.50; in Alabama, 1.65; in Georgia, 1.67; and in Mississippi, 1.68 adults are on hand to provide educational facilities for one child of school age. Practically twice as many adults per child are in the first group as compared with the number in the second group. The data in Table II support these statements. Moreover, the average wealth per person in the District of Columbia is $3,849; in California, $3,093; in Nevada, $6,318; and in New York, $3,276. Now let us take a similar inventory of the other group of states. In South Carolina the average wealth per person is $1,593; in North Carolina, $1,737; in Alabama, $1,264; in Georgia, $1,528; and in Mississippi, $1,242. For similar data for other states see Table II. In the United States, 2.31 adults live, for each child of school age, and the per capita wealth amounts to $2,977.

Table II also contains data concerning the amount of wealth back of each dollar spent for education in the various states. For the United States as a whole, $152.28 of wealth is back of every $1 spent for public-school education in 1930. In the District of Columbia conditions are about normal as compared with the United States as a whole. The tax assessor must find $149.59 of wealth in order to find $1 for school purposes. In California, $1 is spent for public education from every $119.05 of wealth; in Nevada, $1 from every $197.01; and in New York, $1 from every $115.17. South Carolina gives $1 out of every $171.11 of wealth, to public education. North Carolina gives $1 from every $132.29; Alabama one from every $147.66; Georgia one from every $240.63; and Mississippi one from every $130.05. Georgia, therefore, is about twice as reluctant to spend money for public education as is California; Alabama spends about as freely as does the District of Columbia; while Nevada holds on to its wealth more strenuously than does South Carolina; leaving other factors out of the discussion.

TABLE VI. Educational Rank of States for Certain Years by Both Methods, 1910–1930

State	Ayres							Phillips						
	1910	1918	1920	1922	1924	1928*	1930	1910	1918	1920	1922	1924	1928	1930
U. S. Index..	43.65	44.34	44.73	57.15	59.51	63.70	65.46	....	....	....	....	....	....	....
Alabama	45	48	47	45	46	46	45	43	49	45	47	45	45	46
Arizona	18	4	8	9	12	20	13	30	15	33	26	26	30	27
Arkansas ...	46	47	44	43	49	47	46	47	48	44	44	49	49	47
California ..	2	2	1	1	1	1	4	3	1	4	2	2	5	4
Colorado ...	12	16	17	19	7	15	14	12	6	21	14	8	11	18
Connecticut .	13	11	10	20	14	11	11	20	24	24	24	23	18	19
Delaware ...	34	36	33	31	28	31	10	38	40	32	34	29	27	11
District of Columbia..	4	5	9	17	13	2	2	1	8	3	6	9	3	5
Florida	41	39	37	41	38	19	39	40	45	42	40	40	34	41
Georgia	44	44	46	46	45	49	49	42	46	47	48	48	46	48
Idaho	20	19	5	21	29	22	28	18	12	2	20	24	22	21
Illinois	11	24	23	16	16	8	6	7	23	22	18	16	9	7
Indiana	17	14	15	5	17	9	20	14	10	12	4	11	8	10
Iowa	30	7	20	11	23	21	19	23	4	9	8	13	16	17
Kansas	24	26	21	24	22	18	22	19	17	14	19	14	13	22
Kentucky ...	40	42	49	47	43	42	42	41	41	46	45	39	39	40
Louisiana ...	39	43	40	40	40	39	41	37	39	39	41	41	44	44
Maine	31	33	32	33	32	35	34	29	32	29	29	28	32	29
Maryland ...	33	35	36	34	27	30	27	35	36	34	35	32	33	31
Massachusetts.	5	9	11	12	9	10	9	4	9	17	22	22	17	12
Michigan ...	19	10	16	8	6	6	16	8	5	11	5	7	2	6
Minnesota ..	21	18	18	14	11	25	23	15	11	15	12	6	19	28
Mississippi ..	47	46	48	48	47	48	47	48	47	49	46	47	47	43
Missouri	32	32	30	32	33	32	29	32	29	28	31	33	26	20
Montana ...	7	1	3	10	30	24	12	13	20	19	16	31	28	2
Nebraska ...	22	22	25	13	25	29	30	9	22	25	11	19	15	30
Nevada	3	15	2	7	2	5	3	17	27	8	9	17	10	13
N. Hampshire	28	27	28	29	31	27	26	31	26	23	28	34	24	23
New Jersey ..	6	3	7	2	4	4	5	6	16	6	10	5	6	9
New Mexico.	38	31	35	35	37	37	35	39	33	36	37	42	40	39
New York...	8	13	12	6	3	3	1	5	14	7	7	4	4	3
N. Carolina..	48	45	43	42	41	40	40	46	43	43	42	43	41	38
North Dakota	27	20	24	28	26	33	33	24	21	18	23	25	29	32
Ohio	14	12	13	3	5	7	7	21	7	10	3	3	12	8
Oklahoma ..	35	34	34	36	35	41	38	33	35	35	33	35	37	37
Oregon	15	17	19	23	15	14	15	16	3	13	15	10	7	14
Pennsylvania.	16	21	31	27	19	17	21	26	25	27	25	21	25	16
Rhode Island	10	25	29	25	21	13	24	10	28	30	32	27	31	34
So. Carolina .	49	49	45	49	48	45	48	44	44	48	49	46	48	49
South Dakota	26	28	22	22	20	28	31	22	13	20	17	15	14	26
Tennessee ...	43	40	42	44	44	43	44	49	42	40	43	44	42	42
Texas	37	37	39	37	39	38	36	34	34	37	36	37	36	36
Utah	9	8	6	18	24	23	18	11	18	5	21	20	20	15
Vermont	29	29	26	30	34	34	32	28	30	31	30	30	35	33
Virginia	42	41	41	39	42	44	43	45	37	38	39	38	43	45
Washington .	1	6	4	4	10	12	8	2	2	1	1	1	1	1
W. Virginia..	36	38	38	38	36	36	37	36	39	41	38	36	38	35
Wisconsin ...	23	30	27	26	18	26	25	25	19	16	13	12	21	25
Wyoming ...	25	23	14	15	8	16	17	27	31	26	37	18	23	24

*By National Advisory Committee on Education, financial items not deflated except for U. S. Index.

SECTION II

Uniform Definitions, Records, and Reports

Those of us who have been interested in making a rank of states, or of communities, educationally, have discovered that the meaning of some of the fundamental items which are either necessary or desirable in establishing an educational rank for different localities, varies considerably in these different localities.

Those of us who have been interested in per capita costs have long recognized the fact that the items entering into the computation of per capita costs are not always comparable. There is an old saying that "A pupil is always a pupil, but a dollar is not always a dollar," having in mind the fact that the purchasing power of the dollar varies considerably over a period of time. A little study, however, reveals the fact that the definition of the pupil in the different states lacks uniformity, as will be brought out later in this discussion.

One of the chief functions of statistical manipulation is for the purpose of aiding us in making comparisons. When two administrative units are to be compared, these units should be approximately alike so far as causative factors are concerned, excepting the item upon which the comparison

is based. If those factors which enter into the results, vary considerably, the more technical statistical processes are necessary in order to evaluate such factors and eliminate their effects. If, for example, a comparison is to be made between a plant operating 8 hours a day and another 10 hours a day, those factors entering into the output of these two organizations should be as nearly alike as possible, excepting the length of day, in order that any difference which may be discovered in the output of the two plants may be chargeable to the difference in the length of the day. In comparing per capita expenditures in two different institutions the items which enter into the cost of running these institutions should be practically identical, so that any difference found in per capita costs cannot well be charged to expenditures for certain items which the investigator overlooked. States cannot well be ranked educationally, unless the items

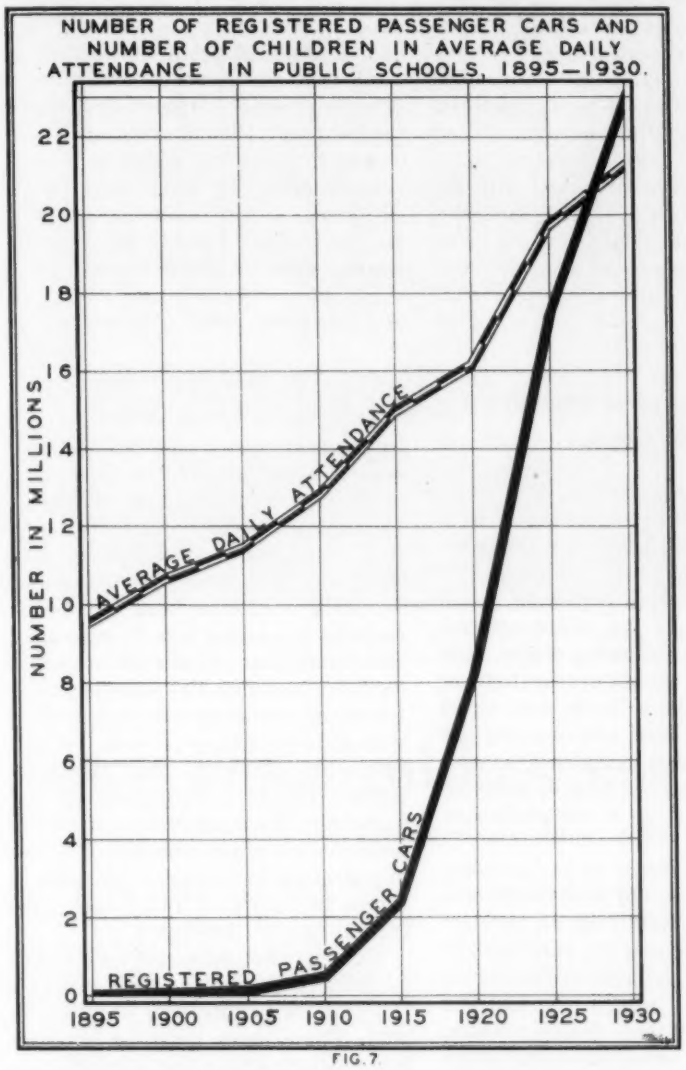


FIG. 7

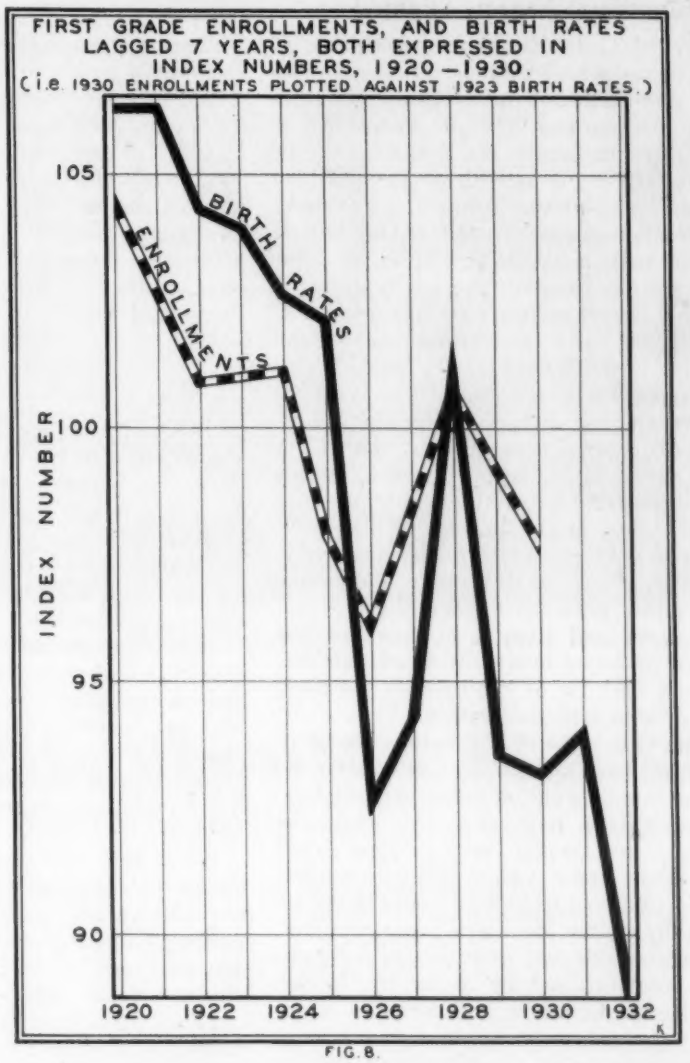


FIG. 8

used in making the rank have pretty much the same meaning, and have applied to them about the same educational yardstick in each state. While the statistical method has furnished us with tools for the elimination of factors which vary but which are accurately measured, there is no mathematical hocus-pocus through which figures can be put to eliminate blunders, errors of computation, and mistakes in the concept of definitions which are fundamental in making comparisons.

Definitions of the fundamental items, such as the school, the teacher, the pupil, and the length of sessions might well have a uniform description, so that schoolmen in different localities might speak the same language. The school, as a unit, because of the various concepts of the school, does not lend itself to statistical treatment. In nine states — Maine, South Dakota, Virginia, West Virginia, Massachusetts, Vermont, New Hampshire, Rhode Island, and Wisconsin — the school is defined as a classroom, including a teacher and her pupils; three states — Maine, Massachusetts, and Vermont — specify that this does not apply to the high school; and four — Maine, New Hampshire, Rhode Island, and Wisconsin — specify that this description includes a unit for which a single register is kept. Two states — Arkansas and Kansas — describe the school as a unit for instruction purposes; eight — Alabama, Indiana, Iowa, North Carolina, Pennsylvania, Texas, Utah, and Washington — as a group of grades, having in mind the admonition that a kindergarten, an elementary school, and a high school housed in the same building should be reported as three separate schools. Ten states — Delaware, Georgia, Illinois, Minnesota, Mississippi, Nebraska, North Dakota, New Jersey, New Mexico, and South Carolina — refer to the school as a building, and six others — Florida, Louisiana, Maryland, Oklahoma, Oregon, and Tennessee — as an organization under a single principal. Five states — Idaho, Kentucky, Michigan, Missouri, and New York — describe the school as a district or a subdistrict. One state — Ohio — does not know its definition of a school; in one state — Wyoming — it is not defined, and reports from six states are lacking. A subdistrict, then, with two 8-room school buildings would in some localities be called one school; in other localities, two schools, and in still others, sixteen schools. These differences in definition make it utterly impossible to give any summarized notion of the number of schools in this country, and render it extremely difficult to make any comparison between different localities by schools.

In states having consolidated schools, considerable uniformity exists concerning the definition of such schools. A great majority of them define such a school as having been formed by a combination of two or more previously existing schools or districts. In Louisiana, transportation of pupils is a part of the definition. In Indiana, schools so formed may be called consolidated schools or joint schools, according to the organization; in Michigan, a consolidated school, a grade school, or a city school; in Oklahoma, a consolidated school or union school. In Nebraska, the state must provide transportation in order to have a consolidated school; in New Jersey, such a school is a combination of two or more municipalities. In Minnesota, a consolidated school must include twelve sections, and in North Dakota eighteen sections, regardless of any combination of any previously existing schools. Maryland is organized on a county-unit system, and the term "consolidated school," therefore, becomes unnecessary. No legal status of consolidated schools as generally defined, seems to exist in Idaho, Illinois, Kentucky, Maryland, Maine, Massachusetts, New Hampshire, North Carolina, Ohio, Rhode Island, Utah, Vermont, or Wyoming, although in Kentucky there seems to exist a rather indefinite understanding that a sufficient number of subdistricts where transportation becomes necessary, may be joined forming one new district or subdistrict. There probably are not many problems associated with a school formed by a combination of several previously existing schools that are not identical with the problem of township, community, union, joint, or centralized schools, which have never been broken up into a number of subdistricts. It seems likely that too much stress has been placed upon problems of consolidation rather than upon problems of transportation, financing, curriculum, and teaching staff, all of which are involved in a centralized school which must serve a large, more or less, rural territory.

(To be continued)

Two Things Wrong with the Literature of Public-School Administration

R. V. Hunkins, Superintendent of Schools, Lead, South Dakota

The first thing that is wrong with the present literature of school administration is that it is confined almost exclusively to a treatment of the principles of school organization and all but ignores the still more important principles of operative technique or managerial art. This situation has grown partly, if not mainly, out of the fact that most of the writers of the texts and reference books on the subject are not practitioners in the field.

Functional Aspects Slighted

These writers observe what takes place on the treacherous school-administration highway, from the safe shelter of their respective institutions of higher learning. They do such things as count the cars, determine the frequency of the different kinds or of aspects of the different kinds, note some of the outward appearances of good mechanism and of good driving, ignore most of the smaller makes as will be later emphasized, and, in general, take observations on what seem to comparative outsiders to constitute the elements of a good school machine and good driving control.

Occasionally these side-line observers round up some of the car drivers at stopping points along the way, known as summer schools or leaves of absence, and "pump" them by means of quizzes and term papers for additional data about conditions on the highway. Often, too, they write long letters, called questionnaires, to the drivers and get further facts. They take the information gathered in these various second-hand ways and treat it by more or less complicated processes of statistical and intellectual analysis and out of it all comes the book literature of school administration.

It is true that some of the writers, possibly most of them, have had some experience in attempting to handle a car on the school-administration highway in days gone by, when the difficulties, if not simpler, were at least much different. While these men sometimes remind us of their practical experience, they must at least inwardly realize that such experience was too meager as a rule, not in every case unquestionably successful, and in all far too inadequate to really figure in the formulas they produce.

Sound Organization Important but not Sufficient

Nevertheless the contribution of these spectator-writers is not inconsequential, and it can be much improved as will be later maintained. These writers on the subject are clever fellows and they learn much, although not enough, from what they see and hear in spite of their being well removed from the fray.

Their chief contribution thus far has been restricted, however, to formulating the principles of proper school organization. They have diagrammed the relationships that should exist among the various officials of the school system. They have analyzed school expenditures, and have evolved sound accounting systems. They have determined the legal and the historical bases for various school procedures. They have accumulated no end of tabular and statistical data from various parts of the field. In short, they have developed a logical and statistical analysis of the field as a whole and of many of its subdivisions. While such analysis is inadequate in itself for practical necessities, it is essential and forms the customary first step in the evolution of any field or subject of study.

Those who are older remember the anatomical physiology we used to study in school. The chief piece of instructional equipment, barring the textbook, was a hideous skeleton of some unfortunate and friendless human being, dangling in its upright wooden cupboard. In the text were the long names of its more than two hundred bones, to be learned. Those who did get through the subject came out with what might be literally called an ossified mastery of it. Today, in the place of anatomy, children study hygiene. Instead of learning of dry bones they learn the rules and joys of healthful living. The emphasis has been shifted from framework to functions. Other subjects have gone through similar changes. Civics, once a study of constitutions and governmental organization, is now a study of government in action. Economics has changed, or is changing, from a logical analysis of the production and distribution of wealth to a study of how business works in actual practice. No doubt, school administration will undergo a similar change. To the logical principles of organization will be added the working principles of administration in action in its psychological and sociological setting. The practical, functional aspects of the subject will come in for far more extended treatment.

The Time for Change Is Overdue

It is high time for such a step ahead. Critical examination of the literature of the field indicates clearly that it has been moving in a circle for a number of years. We are presented with endless repetition of the same admonitions. Over and over we are told that school expenditures should be budgeted, how powers of board and superintendent should be differentiated, that teachers should be paid living wages, that supervision of instruction should not be slighted, that bonds should be serial in form, and so on and on. Accompanying these admonitions are charts, tables, and diagrams purported to give them scientific substantiation. All this is good, but its continual repetition gets the profession nowhere.

What this literature needs is a complete change of emphasis. The old bone-emphasis physiologies were altered from time to time by minor changes of content and by coloring the diagrams, and so on, but genuine improvement did not come until the subject matter was changed from bones to actions and functions. Adding more bones to our school-administration collection, or coloring some of them, will do little good; what is needed is not more bones, but more life. We need a ratio of one chapter or volume on school organization to nineteen chapters or volumes on the operative technique or art of getting things done in the public-controlled schools.

Practical Problems the More Difficult

Understanding the logic of school organization is easy compared to mastering the principles of manipulation. It takes but a little time, for example, to comprehend the pretty diagrams that show the proper relationships of the various officials in a school system. It is simple on paper. But try getting board members, supervisors, principals, and teachers to behave in accordance with such a diagram! It is easy to learn the elements of a sound budgetary procedure but wringing the appropriations from the taxpayers is a horse of a different color. The logic of serial bonds is self-evident, but no bonds are any good unless they carry and there is the real problem. It is hard to appropriate time for supervision, but it is much harder to use the time appropriated in a way to get the best results. It is comparatively easy to organize the purchasing and distributing of supplies; the real problem is to recondition the hearts and minds of those who misuse or abuse them.

At every turn the practical school administrator is confronted with the serious problems of managerial technique. The schools exist in a social medium. They are subjected to the terrific stress that develops from the politics of "City Hall Square" and the prides and prejudices and pettinesses of "Main Street." To send school administrators forth to cope with these powerful and often treacherous social and political forces, equipped with nothing more than a logical analysis of the administrative field is gross unpreparedness. When we say *public* school administration we imply a host of problems that can never be comprehended in any scheme of school organization based upon principles that, though related to, are actually removed from the social milieu in which the schools exist. To solve these socially involved problems, sound psychological principles must be developed — principles of operation and control that are as far above mere principles of organization as the principles of exalted English are above the rules of grammar.

How to Develop Functional Aspects

How are we going to develop a literature of functional school administration? Here, of course, is the rub. In the first place, more help must come from the fields of educational sociology and human psychology. Then we are going to have to tap the reservoirs of experience of the many successful practitioners in the field. By trial and error and success, hundreds of them have learned how to marshal the progressive forces that are always present in the social medium in which the schools exist, against the forces of ultraconservatism and retrogression that are also always present. They have mastered the art of control midst the hazards that beset the schools in their political and social surroundings. We must ferret out the principles that underlie this craftsmanship of active school administration. Out of such principles a sound and useful literature of functional school administration can be developed.

Some of the successful men in the field must be induced to analyze their experience, write it up, and contribute case studies to the profession. These cases must be broader and much more inclusive than the prevalent narrow notion of a case. They must be as broad at least as a successful administrator's way of handling one of the major typical problems. Some of them need to be as broad as the executive management of a school system over a period of years or even as broad as the whole administrative experience of a mature administrator. Through the presentation of such cases the working principles of the profession can be demonstrated.

We can expect much help, too, from the same clever fellows, or their successors, who have developed the logic of school organization. All they need to do, is to change the focus of their instruments of intellectual and statistical analysis from the formal, skeletal side of the field to the active, operative side. They can never fathom and formulate the principles of operative administration without the help of those out in the field, but they can find ways of securing that help if they decide they need it. They have, in fact, obtained much help in the past from practical workers, as mentioned in the foregoing, in summer schools and by the use of questionnaires. But for living, active, operative administration these writers are going to need much more intimate contact with just what a practical administrator does from day to day. They must get a close-range, comprehensive insight into precisely how the typical problems of

(Continued on Page 100)

FRONT (WEST) ELEVATION, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.

Efficiency Distinguishes Salt Lake City's New High School

Howard Barker, Supt. of Buildings and Grounds

The opening of the new South High School on September 8, 1931, marked the completion of a two-year building program made possible by the $1,500,000 bond issue voted May 5, 1928. The finished building also stands out as a milestone in the growth of the Salt Lake City school system, since through its very size, its efficient planning, structural stability, harmony of line and color, and well-appointed equipment and furnishings, it symbolizes the best thought and highest ideals for modern high-school education.

Plans and specifications were prepared by Scott & Welch, architects, and the Department of Buildings and Grounds. Dr. F. W. Hart of the University of California served in a consulting capacity on the educational features of the project.

Arrangement and Pupil Capacity

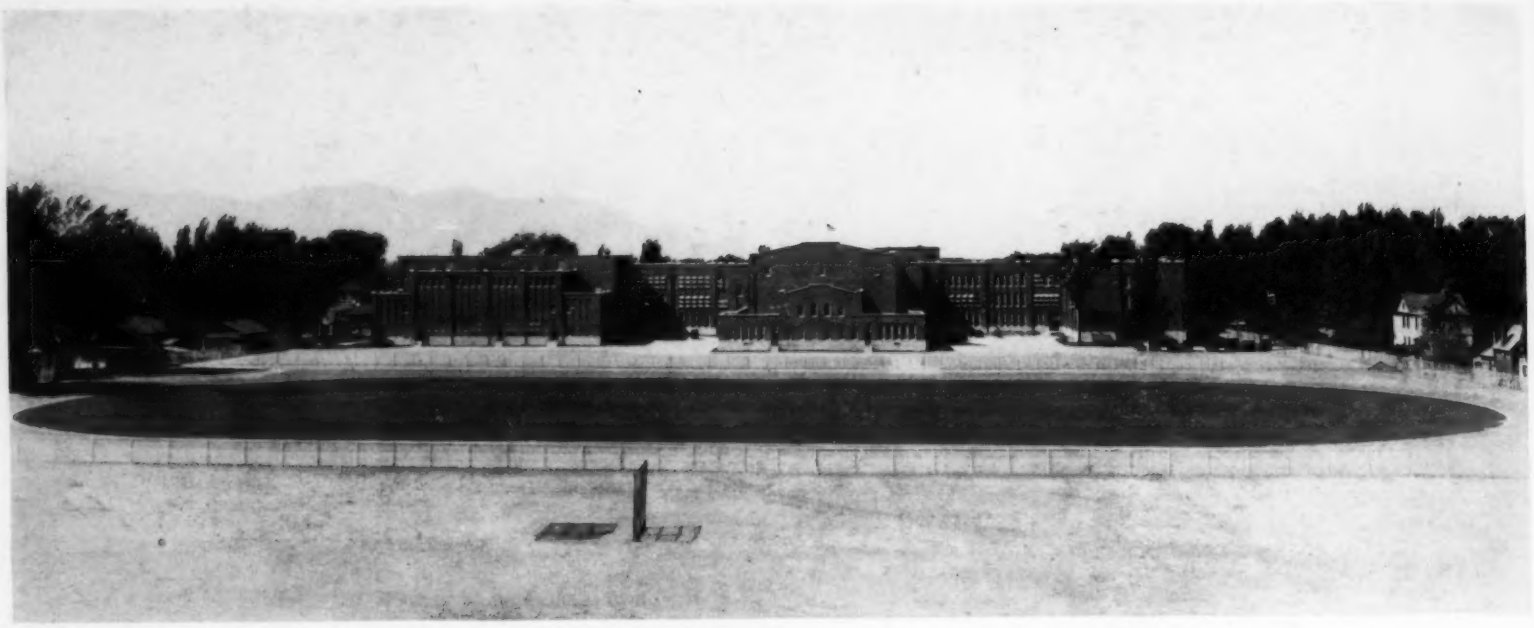
General Layout. The accompanying plans and photographs show at a glance the general layout and design of the building. The choice of the "E" shape for the structure proved to be a good one, the administration office, auditorium, and library being in the central group, the cafeteria and gymnasiums in the south wing, the science laboratories in the north wing, and the classrooms located along the main corridors. Due to the slope of the site and to the isolated heating plant, the only basement space provided was for a supply room and shops. These latter are confined to woodworking, auto repairing and metal working, since the entire city's demand for specialized work can be taken care of at the West High School.

Capacity. The normal capacity of the building is rated at 1,900 students, with a possible overload capacity of about 200 to 300 more when crowded to the limit. The auditorium accommodates 1,900, the music room 300, the library 340, and the cafeteria dining room 800 (or 1,600 for the two lunch periods).

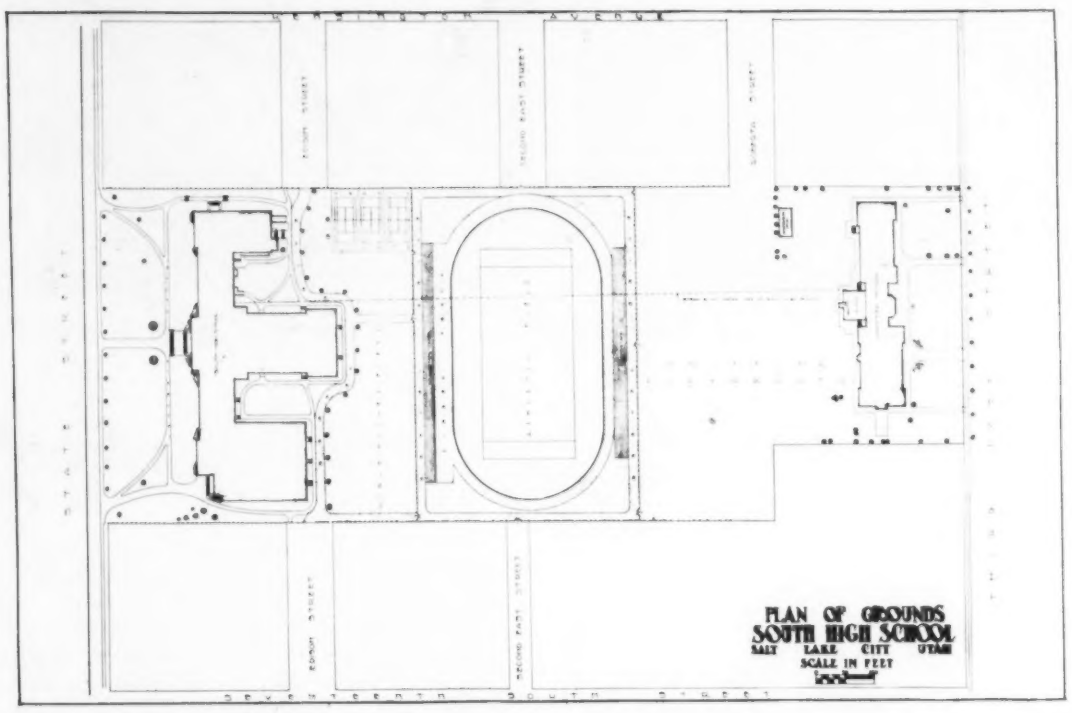
Based on 18 inches of bench space per person, the permanent balconies in the boys' gymnasium will seat 1,150 persons and the portable bleachers an additional 576. This makes a total of 1,726, with every seat at the sides of the court and good visibility to every point of the playing space. When necessary, it will undoubtedly be possible to handle a total of 2,000 students in this room without undue crowding.

Construction Record. Excavation for the footings was commenced on June 20, 1930, and a year later the building was substantially completed — several weeks ahead of the contract schedule. Having the succeeding two months for the installation of furniture and equipment, the entire plant was ready for school on September 8. This is the first case on record of a major building project in the Salt Lake City system being constructed ahead of schedule and entirely ready for occupancy on the appointed date.

LIBRARY AND STUDY ROOM, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.



REAR (EAST) ELEVATION, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.



PLAN OF GROUNDS, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
The building at the east end of the plot is the Whittier elementary school, which includes a steam plant to serve the high school.

DOMESTIC SCIENCE LABORATORY, SHOWING UNIT KITCHENS, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.

Construction and Finish

Structural Features. The structural features of the building may be briefly summarized as follows:

Footings and foundation walls: Reinforced concrete.

Floor framing: Reinforced concrete of the joist-and-slab type, using wide-span, removable, steel-pan forms. Floor systems supported on brick bearing walls at exterior and on concrete girders and columns at interior.

Structural-steel framing for gymnasiums and auditorium above main-floor levels.

Roof construction: Junior I-beam purlins, steel deck, 1 in. of Celotex insulation, 20-year bonded asphalt and gravel built-up roofing.

Walls: Rough textured, golden fire brick backed with commons. Granite foundation facing at entrances, imitation granite cast stone facing for balance of foundation walls.

Partitions: Hollow clay tile.

Windows: Universal awning type.

Interior Finish. Studies of the maintenance and operating costs of previously constructed buildings have proved conclusively that finishes having a relatively low first cost are, as a rule, very expensive items over a period of years. As an example: the maintenance cost of repairing, painting, and cleaning plaster wainscots in corridors in some buildings has amounted to enough in about five to eight years to pay the difference in first cost between plaster and face brick, tile, or marble. Similar comparisons exist between different types of wood trim, floors, windows, etc.

The floor finishes used for the various types of rooms and spaces are: marble for entrance vestibule and lobby; asphalt tile for corridors, ramps, stair treads, locker rooms, domestic-science laboratory, library, aisles and orchestra spaces of auditorium, music room, and for some offices; tile for toilet and shower rooms; cement for chemistry laboratory, auditorium floor under seats, cafeteria, shops, storeroom, janitor closets, etc.; and maple for gymnasiums, classrooms, and other laboratories not mentioned.

Sound Deadening Provided

Probably the most noticeable feature which distinguishes the South High School from any other school building in the Intermountain Country is the extensive use of materials for deadening noise. The walls and ceilings of corridors, stairways, ramps, offices, auditorium, music room, cafeteria, library, typing rooms, sewing rooms, gymnasiums, and community room, etc., are treated with rough-texture acoustic plaster. In passing from a classroom or laboratory having walls and ceiling finished

AUDITORIUM, LOOKING EAST FROM BALCONY, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.

with the customary hard wall plaster to a space treated with acoustic plaster, the sound-deadening effect is so striking that one always questions, "Why was the acoustic plaster not used throughout?" And from what has already been learned regarding the toughness of the acoustic plaster to withstand abrasion and cracking, and also as to economical and effective methods of cleaning, it is undoubtedly true that the slight additional expense of using it throughout the building would have been justified.

Another outstanding departure from methods used in previous buildings was the extensive use of hard surfaces for base, wainscots, etc. In this building marble base and wainscots are used for all spaces having marble floors; likewise, tile base for toilet rooms and tile base and wainscots for shower rooms. Tile wainscots are also used for all stairs and ramps and for the auditorium, tile work in the latter including the lower part of the proscenium arch which usually receives much harsh treatment. Smooth face brick trimmed with tile is used for wainscots in main corridors, extending 4 ft., 8 in., above floor. Similar treatment to a height of 10 ft., 9 in., is used in both gymnasiums. The base used in all spaces except those having marble or tile consisted of special glazed-brick tile, 8 in. wide by 5 in. high by 2 in. thick with bull-nosed edge. This same type of brick tile is used for all window sills throughout the building. Magnesite cove is used under all-brick tile base.

Except in the shop department where hollow-metal doors and trim are used, all doors and trim throughout are of plain red oak, with metal door frames grained to match the oak. The administration offices are equipped with oak picture mold, corridors are provided with wire gutter for radio, telephones, and bell wires, etc., and all other rooms have concealed metal picture molding.

Natural and Artificial Lighting

The lighting problem was attacked more from the standpoint of combination lighting than from that of either natural day lighting or artificial night lighting. A decision as to the number and position of light fixtures, as to the colors to use on ceilings and walls and as to the system of shading the windows was not made until after an extensive study of these factors. These studies were made using various numbers and types of fixtures, with many wall finishes and under different combinations of natural and artificial lights.

Each standard classroom is equipped with one 500-watt indirect fixture; the ceiling is painted dead white and the walls ivory. Laboratories and special rooms are equipped with multiple fixtures of the direct type; ceilings are painted a pale green and side walls a slightly darker green.

Each window, composed of three awning-type sash, is equipped with a separate shade for each sash. Each shade has its roller at the bottom of the sash, and since it is supported by a wire guide on either side, may be drawn whether the sash is open or closed. Furthermore, any window may be shaded from the bottom, thus shielding the desks nearest the window from intense light, but allowing light to pass unobstructed to the far side of the room. The shade cloth is waterproof to withstand dampness when windows are open. The color of the

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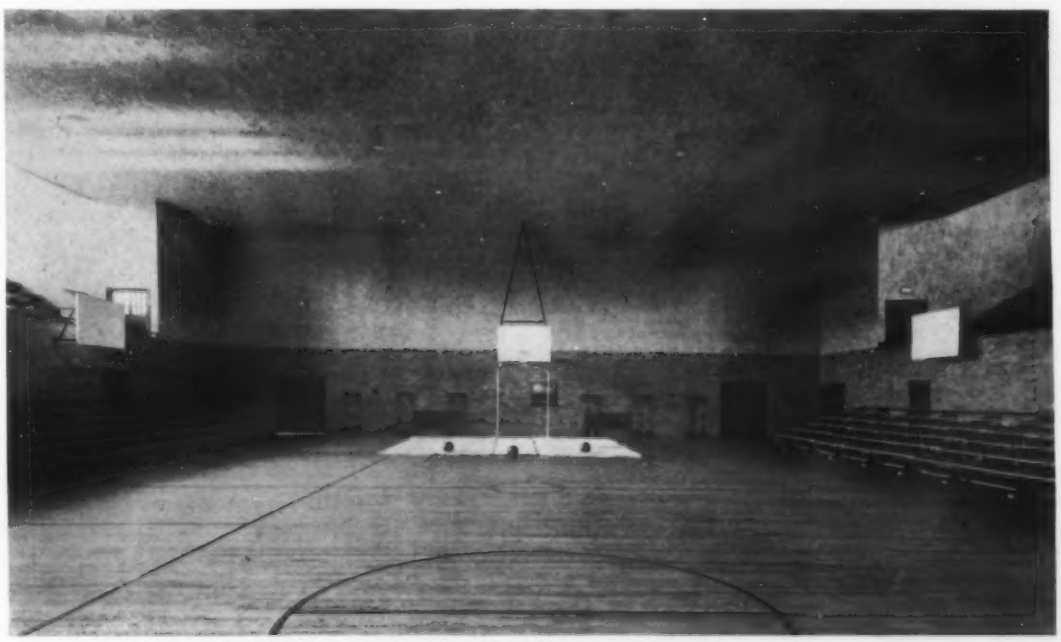
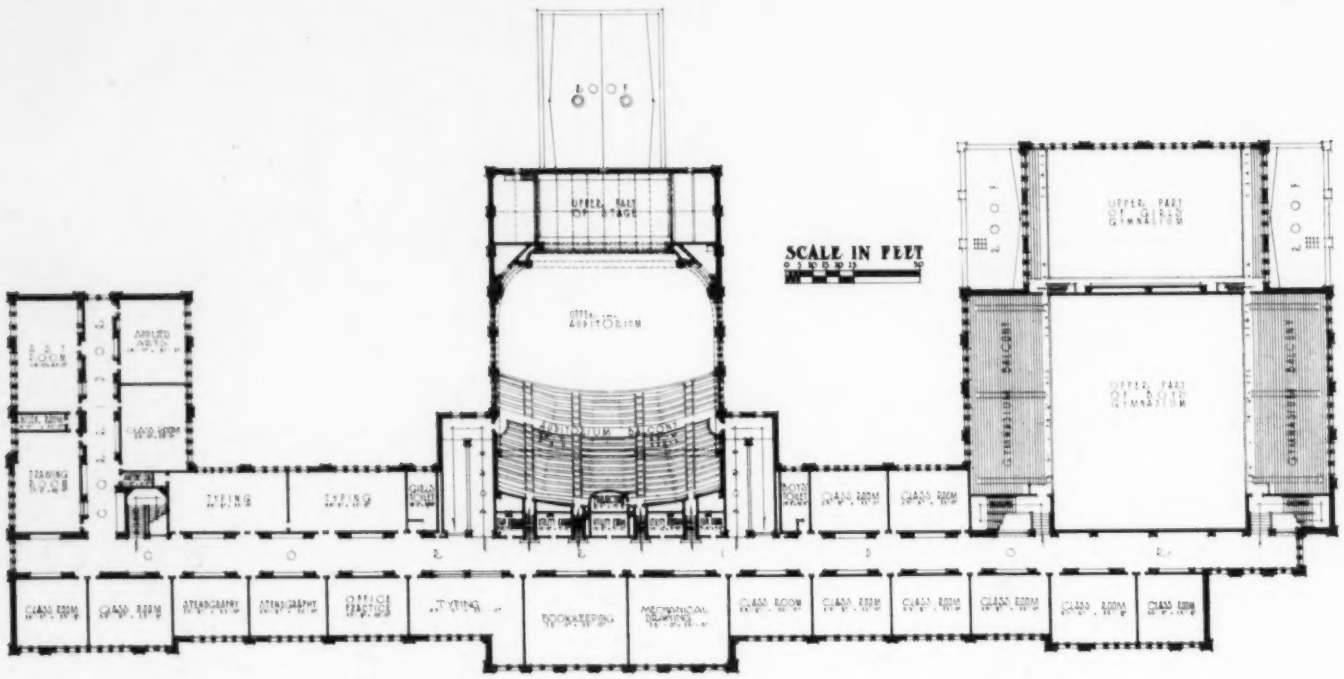
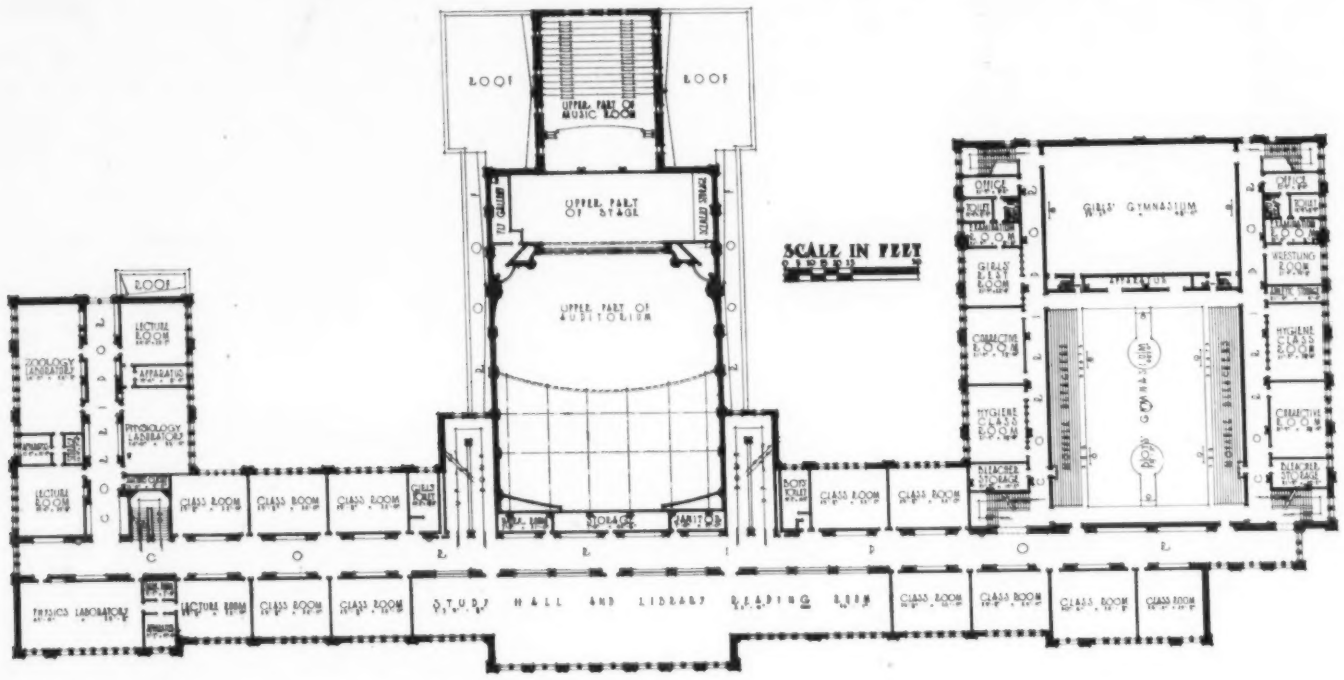


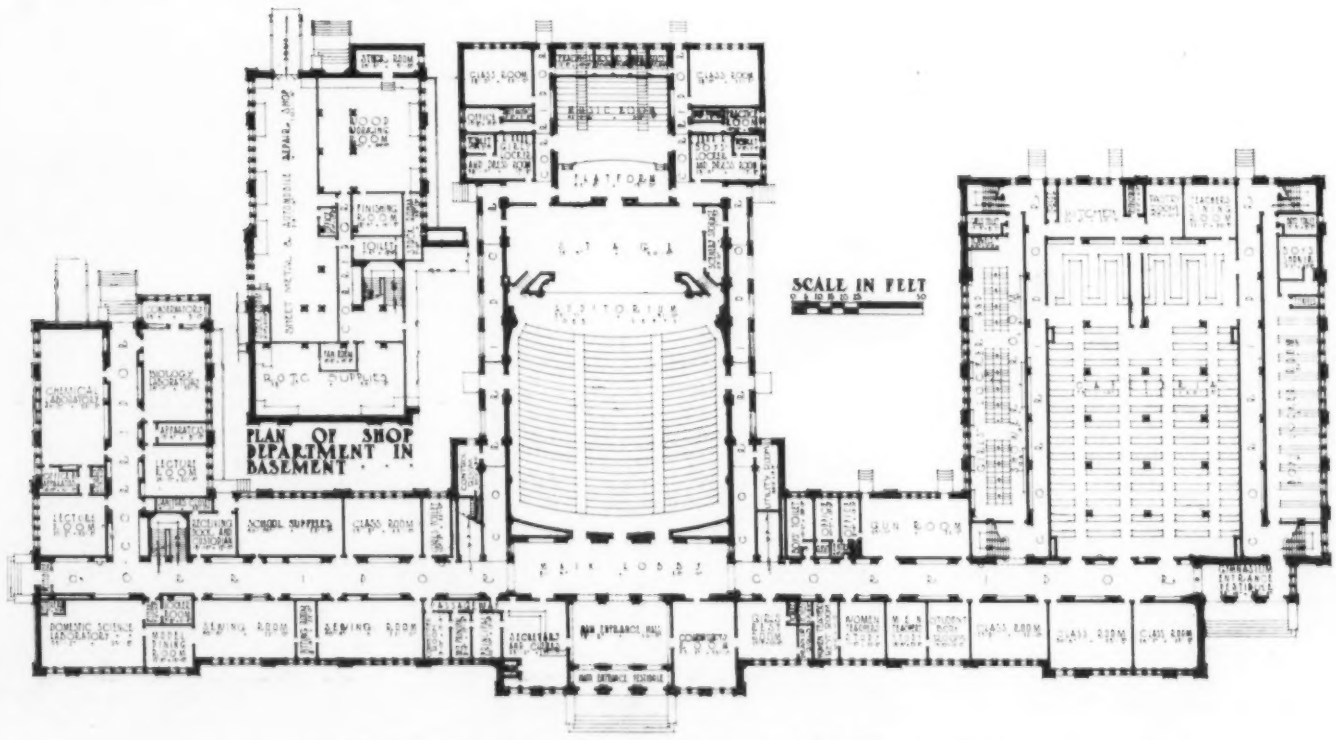
BOYS' GYMNASIUM, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.



THIRD FLOOR PLAN, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH



SECOND FLOOR PLAN, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH


PLAN OF SHOP DEPARTMENT IN BASEMENT
SCALE IN FEET
AUDITORIUM
MAIN LOBBY
GIRLS' TOILET ROOM
BOYS' TOILET ROOM
CLASS ROOM
CLASS ROOM
CLASS ROOM
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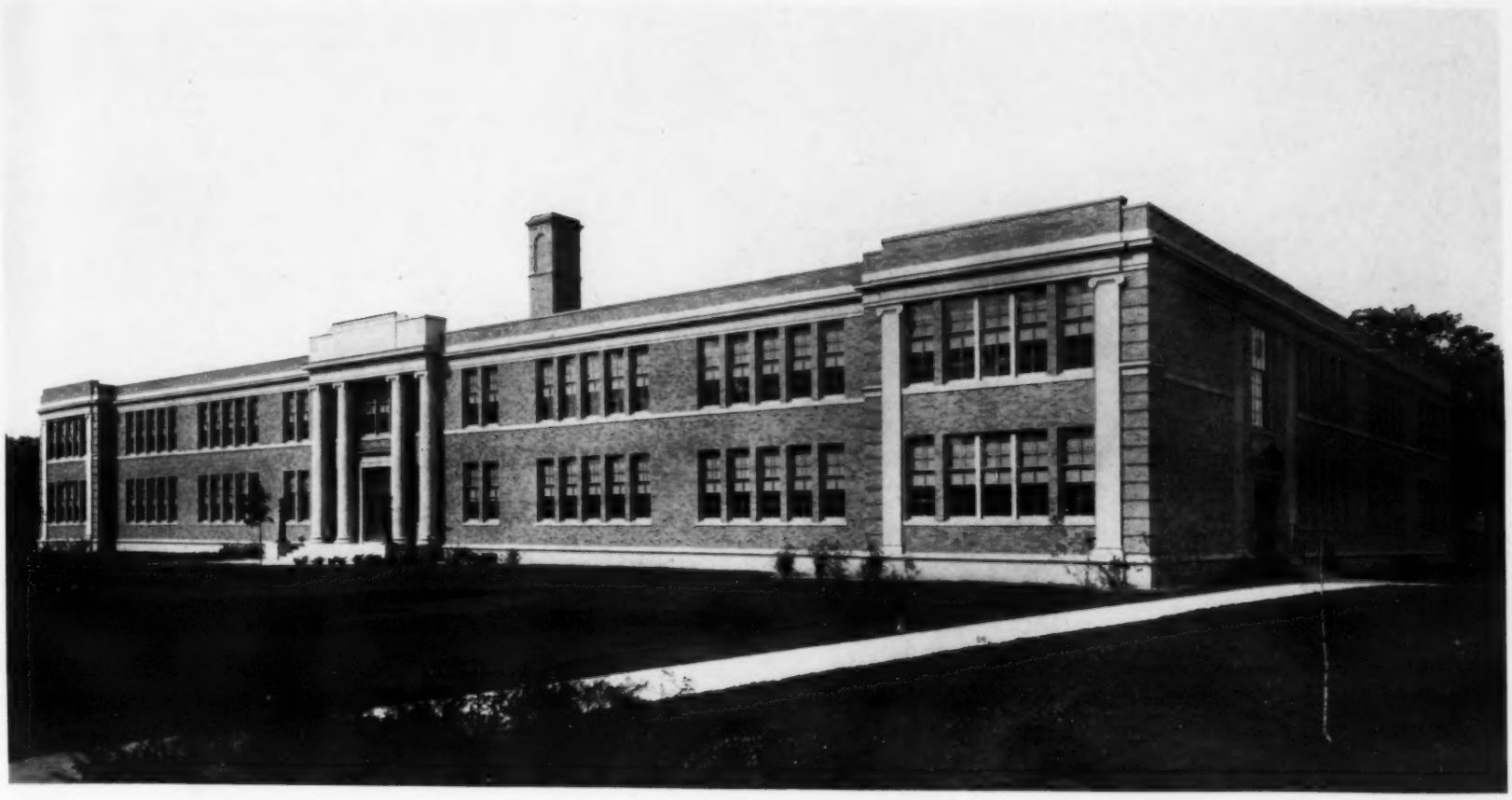
CLASS



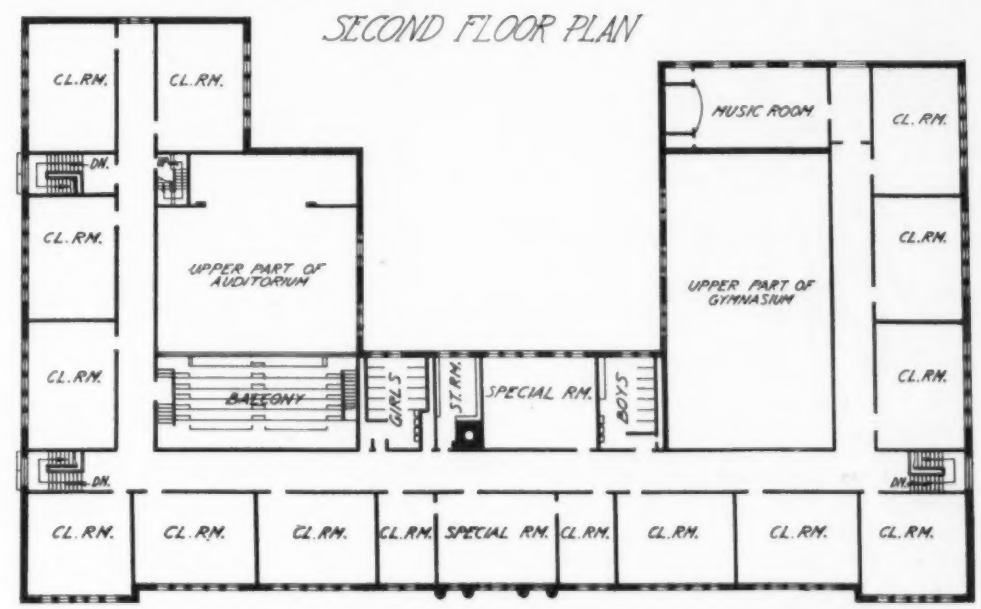
PARLEY COBURN SCHOOL, ELMIRA, NEW YORK
Pierce and Bickford, Architects, Elmira, New York.

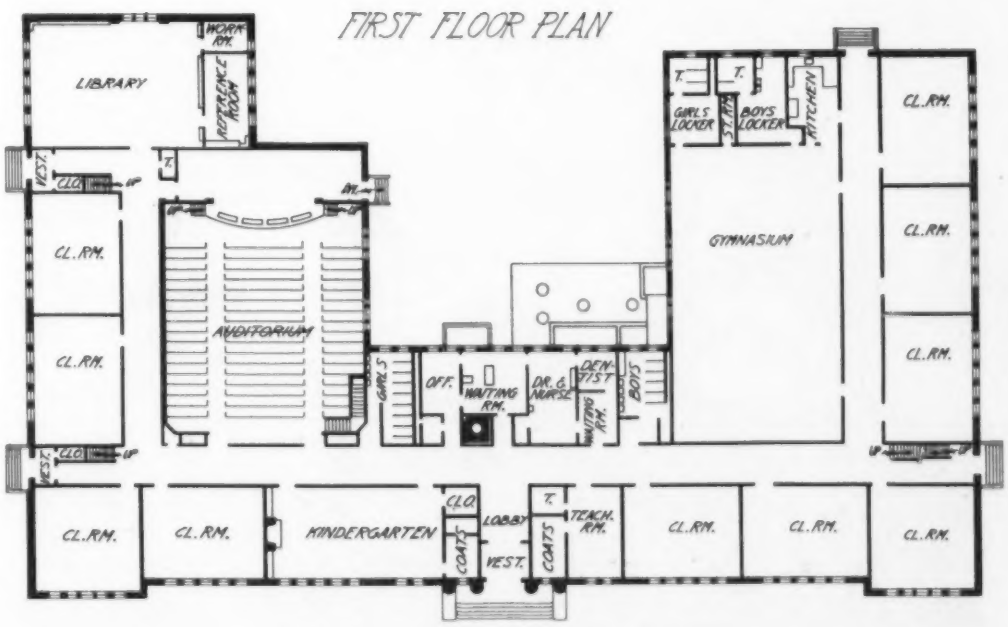
A GRADE SCHOOL WHICH IS A COMMUNITY CENTER

The contrast between the type of schoolhouse erected forty to fifty years ago, and the present-day complete school building, is nowhere more striking than in the neighborhood where an old structure is torn down to make place for a new building. The average citizen frequently sees only the greater beauty of the new school, its clean, fresh walls, and its general trim appearance; but the school-board member and the teacher see the deeper and more significant improvements that mean greater educational and community service. It takes time and some explanation for the citizen to appreciate how much richer is the educational program which the new school building can serve with its gymnasium and auditorium, its library, and other special rooms, its provisions for easy circulation between departments and exits, its health-building and sanitary arrangements, etc. It is no waste of time and effort to "sell" a community on the advantages of a new schoolhouse.

The Parley Coburn School, at Elmira, N. Y., is a new school building which well illustrates the improvement of the new over the old. The building replaces an obsolete structure which formerly occupied a portion of the present property — a fine site surrounded by streets on three sides and a lane serving residential property on part of the fourth side. On all four sides the street lines of the property are bordered with large old trees which provide a setting for the building and amply shade the main playground. The building is laid out in the shape of a huge letter U, with classrooms on the outer sides of the stems and the connecting front. The main front faces east, so that a majority of the classrooms receive the morning sun and the gymnasium is flooded with sunlight from the south and southwest.

The building has no basement, except for a small area in which the boilers and fuelrooms and the ventilating apparatus have been located. The first floor contains ten standard classrooms, a kindergarten, which is approximately the equivalent of one and one-half classroom units; offices for the principal, a medical-inspection unit, toilets, etc. The auditorium, which is entered from the first-floor corridors and has a





PARLEY COBURN SCHOOL, ELMIRA, NEW YORK
Pierce and Bickford, Architects, Elmira, New York.

AUDITORIUM, PARLEY COBURN SCHOOL, ELMIRA, NEW YORK

stage of medium size, measures 60 by 53 ft., and has a balcony measuring 22 by 53 ft. The gymnasium is 43 by 75 ft. in size, and has adjoining it boys' and girls' lockers and toilets. It is expected that the gymnasium will be used at various times for social-center gatherings, and for this purpose a small kitchen and serving room have been arranged.

A final feature of the first floor is a library and reading room, which measures 46 by 32 ft., and which embraces a small reference room and a librarian's workroom. This unit is so arranged that it can be readily cut into a corridor and two standard classrooms when the school requires enlargement. The fenestration, etc., are all arranged for this change. The site is such that an extension of the building can be made immediately to the rear of the library. The room serves not only for the school, but is a regular public-library branch, with a full-time librarian and a changing collection of books. The room can be entirely shut off from the balance of the building for evening use.

On the second floor, there are 13 standard classrooms, 2 recitation rooms for small classes, and 2 special instruction rooms. A music room, which is shut off from the main building by a set of doors across the corridor, is placed above the locker rooms adjoining the gymnasium, and serves for small gatherings and double class groups. The room has been treated with acoustical materials to reduce sound.

The exterior of the building is a simplified, modern adaptation of a classic design, worked out in variegated buff brick with foundation courses, cornices, sills, etc., of gray cast stone. The floors and roof are of reinforced-concrete slabs and beams, carried on a structural-steel frame. The corridors have terrazzo-finish floors, glazed-brick wainscoting, and plastered walls and ceilings. The stairs are of steel, with colored mastic tread. The classrooms have hard maple floors, a minimum of hardwood trim, and plastered walls and ceilings. The auditorium is finished with acoustic plaster, with the ornaments painted in gray and the plain surfaces buff. The gymnasium has buff-brick wainscoting, a maple floor, and plastered walls. The toilets throughout have terrazzo floors and a cove base.

The building is heated with low-pressure steam and has fan ventilation. It is equipped with temperature control.

STAIRWAY, PARLEY COBURN SCHOOL, ELMIRA, NEW YORK

KINDERGARTEN, PARLEY COBURN SCHOOL, ELMIRA, NEW YORK
Pierce and Bickford, Architects, Elmira, New York.

The contracts for the building were let in 1929 and the building was completed and occupied in February, 1931. The cost was as follows:

Cost of building, $313,502.29; cost of equipment, $19,884.70; total cost, $333,386.99; cost per cubic foot, 30 cents; building cost per pupil, $272; total cost per pupil, $289.90.

WATERLOO ADOPTS NEW SCHEDULE FOR USE OF SCHOOL BUILDINGS

The east- and west-side school boards of Waterloo, Iowa, recently adopted a schedule of charges for the use of the school gymnasium, auditorium, and swimming pool. The schedule was prepared by the executive committees of both school systems and was approved by the two boards at a regular meeting. The schedule is as follows:

Auditorium	
Afternoon, forenoon, or evening use	$50
Rehearsal, day only	10
Rehearsal, evening	15
Swimming Pool	
Day, 2 hours	10
Evening, 2 hours	15
Gymnasium	
Day game	15
Day or evening practice	7.50
Evening game	25
Use by Outside Organizations	
No admission fee	25
Admission fee	50

Where janitorial service is required in connection with any school building, it is the duty of the janitor of the building to be present three nights each week, without overtime or extra pay.

SAN ANGELO JUNIOR COLLEGE, SAN ANGELO, TEXAS
Phelps and Dewees, Architects, San Antonio, Texas.

THREE TEXAS SCHOOL BUILDINGS

During the past decade the State of Texas has enjoyed an enormous educational growth marked by a general enlargement of the school program, a vast expansion in the field of the junior and senior high school, and a corresponding growth in school enrollment. The progressive spirit shown in the growth of the schools has been accompanied by a similar spirit in the development of the school plant, and modern school buildings, dignified and interesting in design, carefully planned to meet the needs of the curriculum, and well equipped with permanent furniture and apparatus, can be found in practically every community of the state.

A very interesting series of buildings, reflecting this newer spirit of Texas education, is the work of Messrs. Phelps and Dewees, architects of San Antonio, Texas.

THE SAN ANGELO JUNIOR COLLEGE

The San Angelo junior college building has been erected and equipped to house a junior college organization and is one of a group of buildings including a senior high school.

The building contains no basement except for a small cafeteria and toilet rooms. On the first floor there are two standard classrooms, three laboratories and a science lecture room, a suite for the home-economics department, and two rooms for the commercial department. An office for the principal, a conference room, and two teachers' offices are also to be found on the first floor. On the second floor there are eleven standard classrooms, a library, and a large study hall.

The exterior of the building has been developed in classic style with brick walls and stone ornament. The floors, corridors, stairs, etc., are reinforced concrete, with terrazzo finish floors in the corridors and stairs. Oak floors are used in the classrooms, etc. The toilets have tile walls and tile wainscoting. The auditorium has been treated for sound control with an acoustic ceiling material.

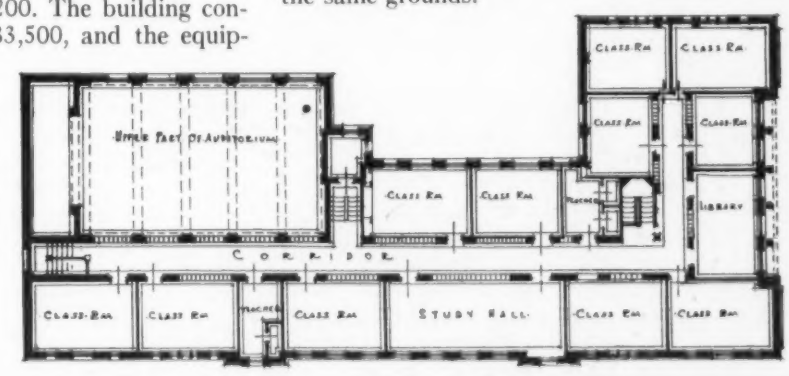
The building is heated by means of steam brought from the adjoining high-school building.

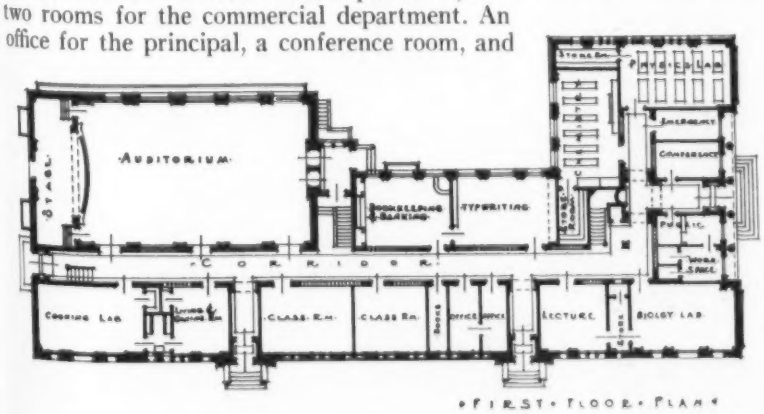
The building was erected in 1927 and 1928, at a total cost of $210,200. The building construction alone cost $183,500, and the equipment $26,700. On the basis of cubic contents the building cost 29.2 cents per cubic foot, or $305.88 per pupil. The building contains 816 pupil stations and has a rated pupil capacity under its present organization of 600.

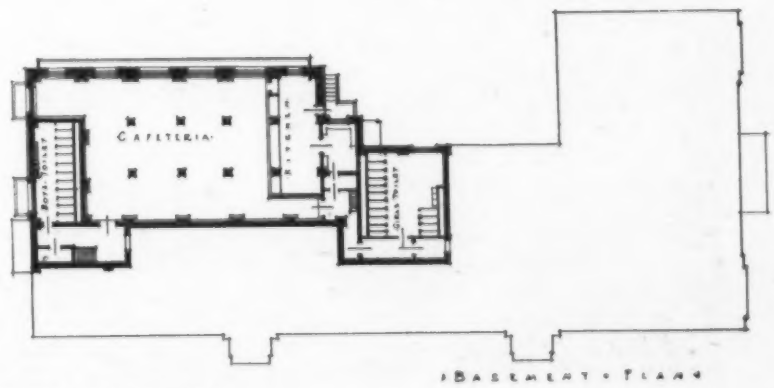
The building contains no gymnasium or health units because these are provided in the high-school building adjoining.

THE SAN BENITO HIGH SCHOOL

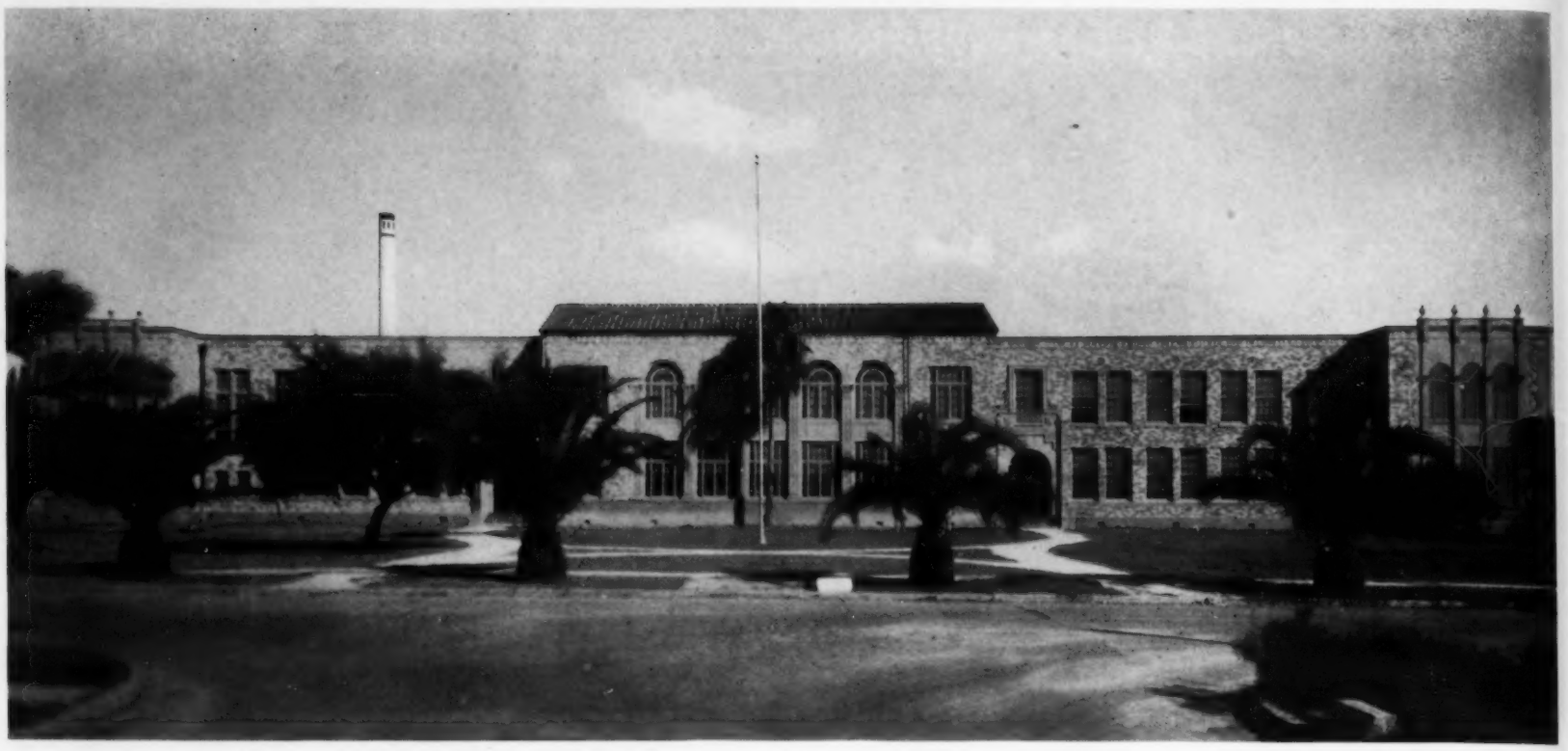
The San Benito High School erected from plans prepared by this firm, is a combined senior and junior high school occupying a piece of property with a total frontage of more than 1,000 feet. The building is the central structure of a group of school buildings and completes a building program which the community has been carrying on for some years. The building is primarily devoted to academic work because the auditorium, the vocational units, the household-arts department, the cafeteria, and the gymnasium are already housed in other units on the same grounds.



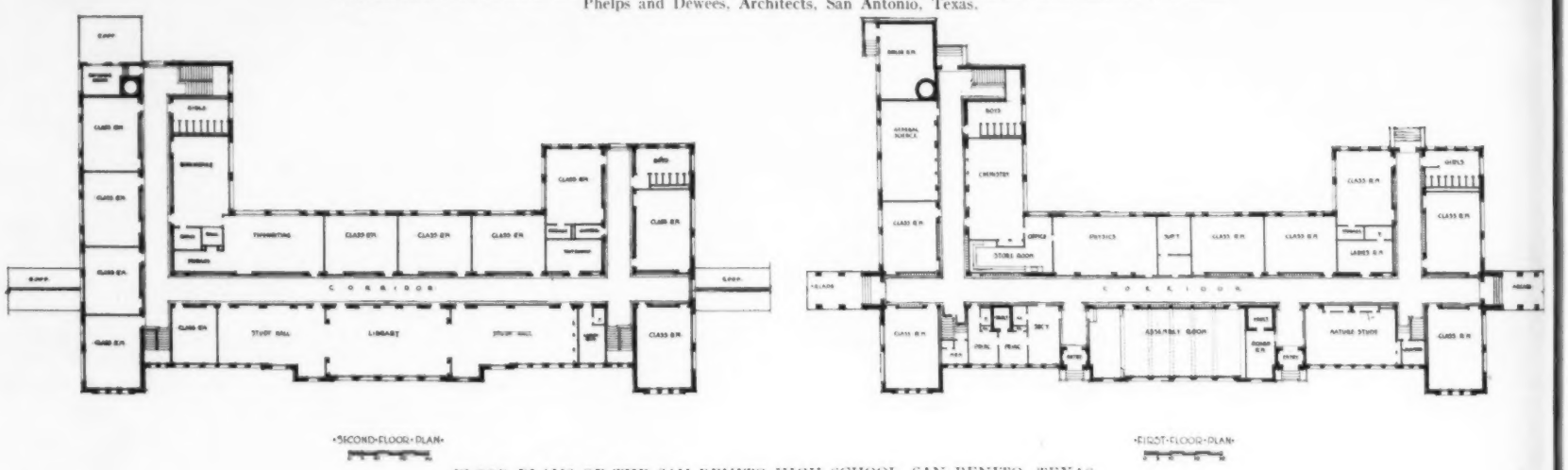




SAN ANGELO JUNIOR COLLEGE, SAN ANGELO, TEXAS
Phelps and Dewees, Architects, San Antonio, Texas.



ADMINISTRATIVE AND CLASSROOM BUILDING, SAN BENITO HIGH SCHOOL, SAN BENITO, TEXAS
Phelps and Dewees, Architects, San Antonio, Texas.



FLOOR PLANS OF THE SAN BENITO HIGH SCHOOL, SAN BENITO, TEXAS
Phelps and Dewees, Architects, San Antonio, Texas.

The building contains eighteen standard classrooms, two commercial rooms, and two large laboratories. The most interesting room on the first floor is the assembly room which serves for small public gatherings as well as for double class units.

The important room on the second floor is the library which has been placed centrally between two study halls.

The building is the administrative center of the entire school system. Adjoining one of the entrances there is a meeting room for the board of education, and adjoining the other there is an office for the secretary and separate offices for the clerk and accountants. The superintendent of city schools has a private office with waiting room adjoining, on the same floor.

The exterior design is a modified Spanish which harmonizes beautifully with the remaining buildings in the group. The walls are varicolored brick; the trim is cast stone and the roof is red tile. The building has a reinforced-concrete frame and reinforced-concrete floors. The finish floor in the corridors and on the stairs is terrazzo and in the classrooms, oak. All the walls and ceilings are plastered, and sound-deadening material has been used to assure perfect acoustics in the assembly room and quiet in the library.

The building is heated by low-pressure steam from a plant located in one of the wings.

The building contains 1,040 pupil stations, but, as a matter of fact, can serve a much larger number of students when the auditorium, the gymnasium, and the shops are fully occupied.

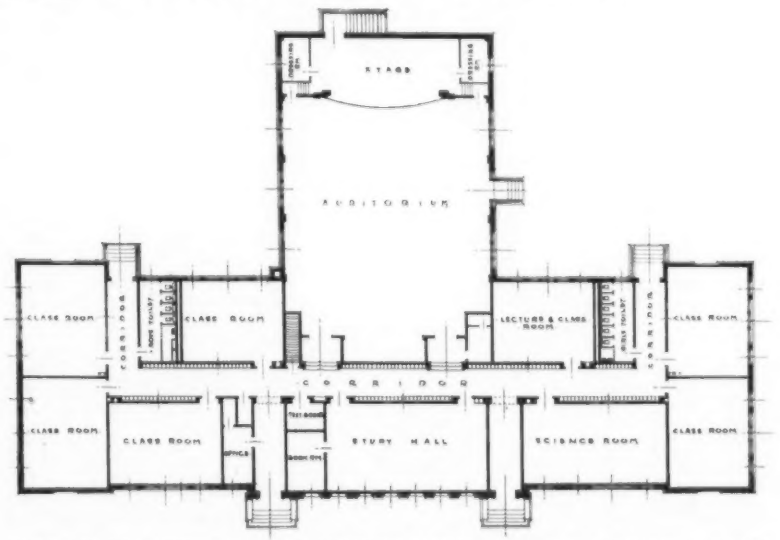
The cost was $152,400, or 28 cents per cubic foot.

A Suburban High School

The South San Antonio High School at South San Antonio, Texas, serves a suburban community of moderate homes. The building, although only one story high, is of type B, fireproof construction and is so arranged that it will permit of considerable enlargement. It contains 7 standard classrooms, a laboratory, and a combined library and study hall. The auditorium, which measures 52 by 64 ft., is fitted with a flat floor and is fully equipped to serve both as gymnasium and as community auditorium.

The exterior has been very simply developed, with Georgian details, in dark-red brick and gray stone. All bearing walls in the building are masonry and all rooms have wood floors, plaster walls, and plaster ceilings. The toilets have cement floors and wainscoting. The building is heated by low-pressure steam.

The building has 320 pupil stations and was erected in 1928 at a cost of $54,200. On the basis of cubic content it cost 20 cents per cubic foot, or $220 per pupil.



FLOOR PLAN, SOUTH SAN ANTONIO HIGH SCHOOL, SOUTH SAN ANTONIO, TEXAS
Phelps and Dewees, Architects, San Antonio, Texas. See Page 49.

How the Tracy School District Financed a Building Program

R. R. Sorensen, Superintendent of Schools

A short time ago an article in the SCHOOL BOARD JOURNAL criticized certain boards of education for creating building funds as a means of financing future school-building programs. The points made were that there is danger of (1) waste and of (2) loss through bank failures. I am wondering if this is not more of a criticism of the administration of school funds rather than of the principle of creating building funds. I shall give the experience of the Tracy, Minnesota, Independent School District and the advantages that are now being felt through the use of a building fund which anticipated our needs.

During the past decade the valuation of the Tracy district has fluctuated around $1,200,000. It is now about $1,155,000.

In 1895 the district issued bonds to build its first permanent school — a combined grade and high school which cost approximately $35,000. In 1914 a high-school building, costing about $42,000, was built. Of the total cost of the high school, the sum of $29,000 was raised through the sale of bonds.

In 1922 the need of additional high-school room became apparent, but the board was still owing for the bulk of the existing buildings. Our debt was $45,000; and $16,000 of this was still due on the building erected in 1895, and $29,000 on the high-school building. Of the $29,000 bond issue, the sum of $15,000 could not be paid until 1932. This was not a large debt for a district of our size, but the discouraging thing was the length of time that it had been running and the amount of interest money that had been paid.

How a Fund Was Accumulated

As a means of correcting the situation and of permitting the erection of a new high school, a building fund was started during the school year 1922–23. While this fund was accumulating, the idea of a new building was presented to the public, and the community was kept informed about the growth of the fund. In January, 1926, the taxpayers were asked to vote on the needed additional high-school accommodations. This bond election carried almost unanimously, there being but one vote against it. Approximately $135,000 was spent for the new building, but due to the existence of the building fund which in five years had grown to approximately $80,000, only $45,000 in bonds were issued. The remaining $10,000 was taken out of the next year's levy.

After the building had been completed, we continued the tax for the building fund to enable the board to buy in, in January, 1931, the $15,000 bonds maturing in July, 1932. During January, 1932, we took up the first $5,000 bond of the new issue, due in July, 1933.

We shall finish the 1931–32 fiscal year with at least $18,000 in the treasury. Approximately $10,000 of this amount is to be used for installing a new heating plant in the grade school. Thus we have a debt of $40,000 and a sizable balance in the treasury. Our insurance appraiser has valued our buildings at $208,000. The buildings are in first-class condition.

If we had not created a building fund but had issued bonds for the new buildings to come due when the then outstanding bonds were paid up, our present debt would be $150,000. Thus the fund has meant a saving to the district of the entire interest charges on $110,000, or $4,675 annually, plus a plan for retiring the bonds.

The Tracy Tax Rate Not High

Naturally our people are very happy that a fund was created and used. We have one of the smallest debt burdens of school districts of our size in Minnesota, which is particularly helpful during these years of economic difficulties. Our levy for next year has been reduced $8,449 without affecting our budget. This was possible because our debt is now a nominal sum, and will not require a large levy for interest. If economic conditions improve, we plan to hasten the retirement of the outstanding bonds.

During the entire period of building construction and bond retirement our tax rate has hovered around the state average, which is indicative that our taxes have not been out of line with those of other schools.

I have given this concrete illustration of the working of a building and sinking fund to show its value to a school district. A private corporation would hardly launch a building program without having a portion of the required cost in their treasury. Why should not public institutions observe the same wise policy?

Many of our larger communities as well as a large number of our smaller communities are facing bankruptcy because they are overburdened with bond obligations. During the past decade of prosperity public officials very evidently became overenthusiastic about improvements. Bonds were voted by one generation and made the obligation of future generations, apparently without consideration of the fact that succeeding generations will have financial problems of their own without being burdened with those of preceding generations.

Today people are born in debt. Probably the principal payments and interest payments on excessive bonded indebtedness is one of the major causes of the prolongation of our present economic depression.

It would seem to the writer that the only means for improving a condition of this kind is to be found in a well-planned program of building improvement that will anticipate financial as well as classroom needs. In large communities where buildings are being erected each year financial difficulties can be met by a pay-as-you-go policy; in smaller communities the creation of a building or sinking fund will serve the need. This fund should be amply protected and should be earning money during its accumulation.

COLOR ON SCHOOL WALLS AND CEILINGS

The matter of classroom decoration presents a unique and peculiar problem. Good facilities for instruction, a well-heated and ventilated building, and a good roof do not, by any means, complete the modern educational plant's responsibility to its pupils. The artistic side, which includes color decoration, is quite essential, if the schoolhouse is to be regarded as a guardian of that culture with a capacity for developing appreciation of the finer things of life.

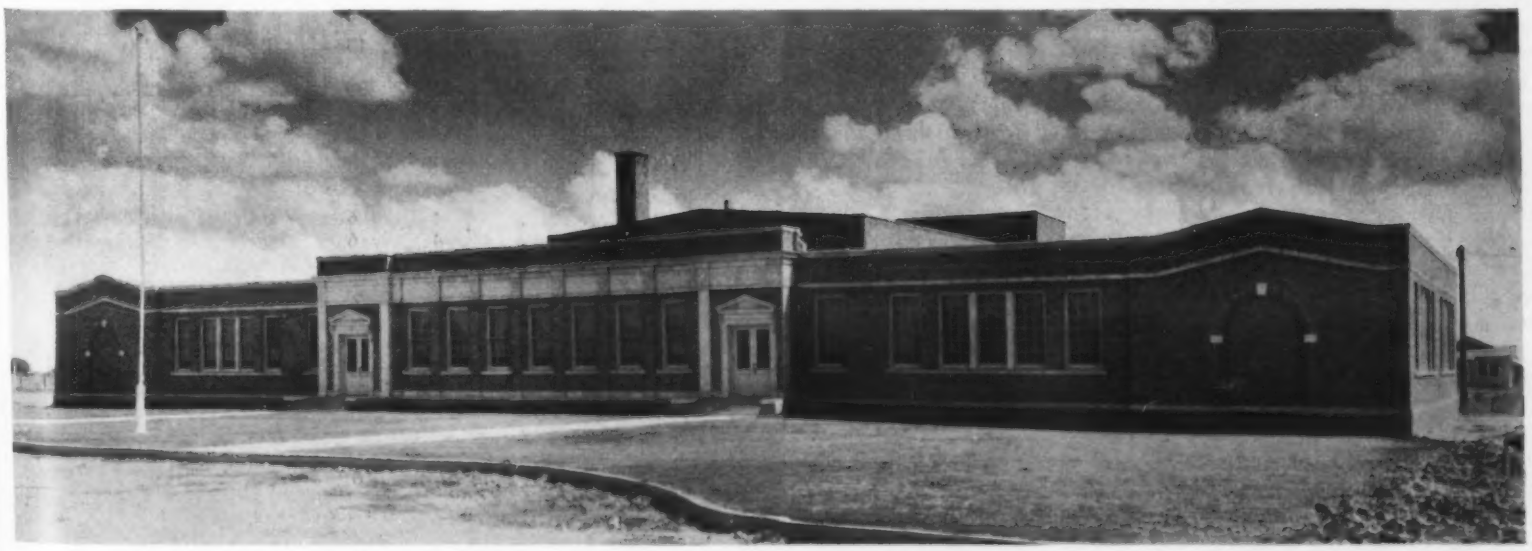
This fact has been exemplified by the inclusion of color in the Washington School, at Wood River, Ill., a school where the children study and recite in rooms which have been carefully and tastefully decorated. The plan of decoration was developed under the leadership of Supt. G. A. Smith and was suggested by the color scheme in the Holbrook School, Hamtramck, Mich.

In the Washington School, the paint used on ceilings and plastered walls is a waterproof and washable wall finish, the color of which may be described as a warm light gray. A cheerful, airy appearance is maintained by special trimming in either yellow, green, or blue, depending upon the location. For example, in the kindergarten and first grade, a special shade of bright yellow is used. This same yellow is used on the backs and edges of seats, the legs of chairs or stools, on chairs, tables, and benches.

The same color scheme—light gray for walls and ceilings, dark taupe for woodwork, and light taupe for panels, cupboards, desks, and bookcases, is used in the classrooms, offices, corridors, gymnasium, auditorium, and music room.

In the higher grades, green or blue is used in place of yellow for striping. Green is used for striping in the library, auditorium, gymnasium, music, art and science rooms, offices, and corridors.

In the selection of the colors, an effort was made to select neutral shades, or shades as near neutral as possible. It was desired that the scheme of decoration should be an accessory, and not a dominating influence, so that it might blend into the surroundings rather than stand away from them.



SOUTH SAN ANTONIO HIGH SCHOOL, SOUTH SAN ANTONIO, TEXAS
Phelps and Dewees, Architects, San Antonio, Texas.

Economies in Public-School Expenditures for Instruction

Cecil W. Scott, Fellow in Educational Administration, Teachers College, Columbia University

(Concluded from February)

Curriculum Economies

Judging from the scores in Table III, curriculum economies now being used are rather desirable. The method ranked first by members of both groups, namely, alternating certain subjects and making them elective to students of two or more grades, is applicable only in small high schools. Scores for this practice indicate that it is good both in theory and practice. Correspondence courses, as shown by the tabular data, may be used to good advantage by high schools of small size.

Desirability scores on the second item in the table, i.e., reducing overlapping of subjects, are next to the highest for each of the groups; but scores indicating experience with this practice are low. Could undesirable overlappings and duplications in the curriculum be eliminated, much time might be saved for students and large financial savings effected over a period of years. Reducing curriculum-revision work and adapting borrowed curricula to local needs, made a strong appeal to both groups and was judged desirable in practice by both. The cost of revising a curriculum is considerable and, furthermore, a question may be raised as to whether the needs of each separate community are so unique as to make adaptation of borrowed curricula inadvisable. Small and medium-sized school systems may be justified in using adapted curricula, or in developing curricula through coöperative arrangements.

Elimination of certain school offerings and of entire school divisions, respectively, were given low scores by both groups. The several values recorded for these practices, however, indicated that there may be some virtue in them. It is the writer's opinion that the first device may contain possibilities but that the second should be resorted to only in cases of emergency.

Comparatively speaking, the opportunities for economizing in the field of the curriculum are not so great as in other fields. Courses of some kind must be offered, although many critics of public education who clamor for elimination of relatively new additions to the curriculum apparently do not realize this. In the case of academic subjects, the problem is one of providing those studies which students most need or want, since the cost of teaching such subjects is fairly uniform where classes are of normal size. The special subjects or activities, e.g., shop, domestic-science, and art courses, call for special consideration. The cost of such courses is often two or three times as great as for academic subjects. However, new conceptions of education and a new type of high-school-student personnel make such courses necessary. The question of special courses, then, becomes one of deciding which courses will be offered, and how they may be conducted at least expense. In short, the curriculum presents a problem which is definitely educational in character, although it does have important fiscal aspects.

Personnel Economies

Savings on personnel pervade every other field of public-school economy treated. If costs are reduced through increases in class size, it is because fewer teachers are employed. Similar observations might be made with regard to economies produced through the use of certain organization practices and teaching methods, or through changes in the curriculum. Some personnel economies, however, are separate and distinct from other types. In the writer's study these types were included along with all other kinds, as is shown in Table IV.

The use of teacher committees for curriculum-revision work was rated as most desirable in the list by both the instructional and administrative groups. Scores based on experience with this practice are worthy of note, for they are of appreciable size and, more important, they indicate that the method invariably produces good results. Another recommendation for this device is that it is sanctioned by curriculum specialists in general.

Desirability scores on the second item, which suggests that minimum teaching loads be established, are the second highest in the table for each group. Corresponding scores showing experience are relatively high. Since teaching loads vary considerably in almost every school system, standardization of the teacher's working day or week would, as a rule, produce lower instruction costs. According to the National Education Association's study of class size, an encouraging number of city school systems have recently made studies of teacher load.[8] If survey work of this type continues, and changes in class size continue to be made, adjustments in teaching loads may be expected to follow.

Reducing the cost of sick leave by one method or another, was deemed desirable by 57 per cent of the first group, and by 66 per cent of the second. One school system reported a saving of $16,000 in one semester through changes in the administration of sick leaves for teachers.[9] Careful checking of sick leaves, and assisting teachers to maintain a higher standard of health, were the means used to secure this economy. East Cleveland, Ohio, is saving approximately $60 a day by having assistant principals and supervisors handle some of the work of absent teachers.[10] Some systems are even discontinuing temporarily compensation for absence on account of illness. Though some of these practices may not be defensible, others or variations of them could be used to advantage in local situations.

The fourth item in the table, namely, assigning teachers certain administrative duties, was given high desirability and experience scores by both groups. This practice, which is widely used, may be defended on the ground that it affords teachers a chance to become better acquainted with students and makes them more capable as teachers.

TABLE III. Desirability and Prevalence of Curriculum Practices Effecting Reductions in School Costs[1]

Proposed Economies	*Instructional* Group Percentages			*Administrative* Group Percentages		
	A[3]	*B*[3]	*C*[4]	*A*[3]	*B*[3]	*C*[4]
1. Alternate certain subjects in small high schools and make these subjects elective to students of two or more grades	60	32	29	79	64	59
2. Reduce overlapping of subjects	55	5	4	60	8	8
3. Reduce curriculum-revision work; borrow curricula and adapt to local needs	53	20	14	47	19	16
4. Use correspondence courses in small high schools	19	4	4	37	10	4
5. Eliminate certain subjects, subject fields, or activities	19	4	3	25	10	5
6. Eliminate entire school divisions, i.e., kindergarten, night schools, continuation schools	12	7	0	21	11	5

[1]Same subtitle as in Table I.
[2]Scores have the same meaning as in Table I.
[3]*Ibid.*
[4]*Ibid.*

TABLE IV. Desirability and Prevalence of Certain Methods of Reducing School Costs for the Instructional Staff[1]

Proposed Economies	*Instructional* Group Percentages			*Administrative* Group Percentages		
	A[3]	*B*[3]	*C*[4]	*A*[3]	*B*[3]	*C*[4]
1. Use teacher committees for curriculum-revision work	70	36	36	81	18	14
2. Establish minimum teaching loads	66	31	29	72	31	25
3. Reduce cost of sick leave by careful check-ups, by service of health department, or by teacher-financed group insurance	57	18	17	66	17	12
4. Assign teachers certain administrative duties, e.g., counseling, extracurricular activities, etc.	53	30	15	64	42	34
5. Supply some or all teachers with paid student assistants, apprentice teachers, or clerical help	30	13	9	42	10	7
6. Pay night-school and substitute teachers lower rates than regular (or day) teachers	41	30	26	29	27	18
7. Temporarily suspend salary schedules (no reductions)	36	28	15	58	19	11
8. Reduce all salaries by approximate amounts needed to maintain relation of last few years between salaries and the purchasing power of the dollar	4	6	0	16	14	5
9. Reduce salaries of certain groups of employees	4	6	6	5	13	2
10. Employ least expensive certified teachers, i.e., those with minimum of training, or women, married women, and home teachers	9	6	3	9	13	4
11. Eliminate bonuses for summer-school attendance	28	23	15	62	12	7
12. Increase principals' supervisory duties and assign those in small schools some teaching duties	39	26	21	64	34	27
13. Hire supervisors, research director, and athletic coach jointly with another system	33	6	5	35	6	5
14. Eliminate some nonteaching or nonsupervisory positions, e.g., research director, heads of departments, etc.	31	3	3	34	10	7

[1]Same subtitle as in Table I.
[2]Scores have the same meaning as in Table I.
[3]*Ibid.*
[4]*Ibid.*

[8]*Op. cit.*, Circular No. 1, p. 3; Circular No. 6, p. 4.
[9]Buckingham, B. R., and Reeder, W. G., *A Study of School Economies*, Educational Research Bulletin, Ohio State University, Vol. 4, February 18, 1925, p. 69.
[10]"School Finance and Taxation," American School Board Journal, Vol. 82, No. 3, March, 1931, p. 130.

Supplying teachers with paid assistants who, of course, receive lower salaries and whose duties are largely clerical, has the appearance of a desirable economy practice. Scores in the table on this item indicate that it should be investigated. A study of the time devoted to clerical duties by 79 teachers in 11 high schools, each with an enrollment of 1,200 or more, reveals a range from zero to 21 hours weekly.[11] But, regardless of the disagreement among teachers as to what constitutes clerical duties, practically all of them perform an impressive number of tasks which might as well be done by less expensive workers.

Scores in the table on proposals to reduce salaries are extremely low; those on the recommendation that salary schedules be temporarily suspended are reasonably high. Relatively high scores are recorded on the item suggesting that night-school and substitute teachers be paid lower rates than regular (day) teachers, but this measure is being used rather widely. The viewpoint evident in the scores on the two proposed methods for reducing salaries may theoretically be the correct one; it is not, however, the one which will control practice during the next few years. Many educators now frankly admit that during the existing period of financial stress and strain, reductions are unavoidable and, to some extent, justifiable.

Economy practice No. 10 of the table presupposes that certain types of teachers, for example, women teachers as opposed to men, married women, and home teachers, may be employed at lower salaries than other types. All the scores recorded for this item indicate that the practice is of questionable value. The next suggestion in the list, namely, eliminating bonuses for summer-school attendance, was scored much higher on desirability by the administrative group than by the instructional group. Savings effected by this method would be small in any case.

Increasing the principals' supervisory duties and assigning those in small schools some teaching duties, appears to have real possibilities. Rockford, Illinois, was able to cut the cost of instruction per pupil in 1929–30, in comparison to that for the previous year, partly by placing greater responsibility for supervision on principals.[12] Hiring certain workers jointly with another system was thought desirable by approximately one third of each group. Experience scores on this device are low, yet it probably could be used to advantage by small school systems in many localities.

Elimination of some nonteaching or nonsupervisory positions, the last item in the list, was considered desirable by one third of each group. And again, a low degree of experience is represented by the scores. One superintendent in a city of 150,000 was able to eliminate 75 teachers after inaugurating a check-up system on small classes and nonteaching positions, this being effected "without injustice to a single teacher by an indefensibly heavy pupil or pupil-period assignment."[13]

As in the case of other types of instructional economies, research and experimentation contribute much to the development of personnel practices which, while fair to all concerned, will be less costly than many now in use. Changes in policy in this field, however, should be based not only on the results of investigation, but on a sound social philosophy.

Case Study

Throughout this article there has run the assumption that practically every school system may effect reductions in expenditures for instruction without simultaneously bringing about harmful educational results. For purposes of illustration, a case study is presented showing the results of an economy program, largely instructional in character, which has been in operation for a period of four years in what may be termed an average, small, city school system. The city is Colorado Springs, Colorado, and the facts as presented are a résumé of a report furnished by Supt. H. M. Corning.

1. Colorado Springs now has 32 fewer teachers than were employed four years ago. This reduction in personnel has been brought about in the face of a steadily, although not rapidly, increasing enrollment. The process has not seriously increased the size of classes, the respective figures for average daily attendance in the three school divisions being at present as follows: elementary, 29; junior high, 23; senior high, 24. Plans call for further reduction in staff in 1932–33. Since the average salary in the system is in excess of $2,000 a year, considerable savings have, and are, being made.

2. Four years ago the school system was committed to the plan of assigning each principal to more than one building and providing a clerk in each building zoned. This plan has been extended during the four-year period.

3. Small outlying schools have been closed and their enrollments transferred to adjacent school buildings. These outlying schools had the largest per-pupil costs of all the buildings in the system. In two of them the per-pupil costs were higher than in the senior high school. Despite the high costs, the conditions in these schools were as bad as could be found in any rural schools. Five of these small schools have been closed and the total net saving per year resulting therefrom has been $36,500. It is contemplated to close another outlying school during the summer of 1932, which will effect a net saving of $14,000. This is the most satisfactory economy the system has used; it saves money in rather large amounts and, more important, it gives certain groups of children much better educational opportunities than they could have had with the old arrangement. All of the children from the closed schools go into modern platoon schools providing enriched programs.

4. Miscellaneous economies:

a) The system is operating with a reduced number of supervisors. An assistant superintendent in charge of instruction directs all supervisory work, which is now being done more effectively and at less cost.

b) Uncertificated people who are not paid wages of teachers supervise study halls, hold library positions, and work as matrons.

c) Rearrangement of platoon schedules has brought about considerable saving. For instance, two first-grade sections are together in the homeroom and in the special rooms, which make possible a combination of the groups in many of the special subjects. Thus the number of teachers needed has been reduced.

d) Further adaptation of the platoon plan is being considered. If carried out, the length of the platoon school day will be reduced 15 or 20 minutes and only one relief period daily will be necessary for each teacher. This will result in the releasing of one teacher from each platoon school.

5. As a result of the foregoing economies, the tax levy for schools in Colorado Springs has been reduced three different times during the four-year period, once by .75 of a mill, again by .25 of a mill, and the last time by 1.1 mills. The accumulated savings to the taxpayers from these reductions in levy up to January 1, 1932, have been $214,768.38.

6. In addition to the savings accruing to the taxpayers as a result of reduced tax levies, sufficient funds have accumulated as a result of the economies in force to pay for a $75,000 annex to the high-school building and to retire $100,000 worth of junior-high-school bonds. Originally it was planned to increase the tax levy to retire these bonds, which fall due this school year, but current savings have made this unnecessary.

7. No type of educational service has been discontinued in Colorado Springs as a result of the economy program. In fact, the musical program has been extended and all the enrichments commonly found in modern school systems are provided. The salary schedule, adopted in 1921, which is a rather high one has not been reduced in any aspect. In short, the system is today providing just as much and as good education as before the economies mentioned above were initiated — and at less cost.

Conclusion

All the results of this study indicate that school systems in general have by no means exhausted the opportunities at hand for effecting desirable instructional economies. Scores in the tabular data indicative of desirability are, as a rule, considerably higher than those representative of experience. And these values, based largely on opinions, are given extra weight by the scores based on experience, there being a rather high positive correlation between practices used or seen in use, and the desirability of results obtained by employment of these respective practices. The other noteworthy result is that the two coöperating groups tended to check the list of economies in the same way; but scores recorded for the administrative group are, on the whole, higher than those for the instructional group.

Of the specific practices suggested, the most valuable ones — judging from the scores — are these: (1) Increasing class size on certain levels only and in individual subjects and separate subject fields; (2) using teaching methods adapted to large-group instruction — and having students furnish their own materials; (3) alternating subjects in small high schools and making these subjects elective to students of two or more grades — also reducing overlapping of subjects; (4) using teacher committees for curriculum-revision work, establishing minimum teaching loads, reducing cost of sick leaves, and assigning teachers certain administrative duties.

An inevitable conclusion is that every phase of public education is vitally affected by the instructional-economy movement now in progress.

THE OLDEST SCHOOLHOUSE IN WESTERN PENNSYLVANIA
It is 149 years old, located in Beadling Park, Lebanon, Pa., and is preserved fitted with ancient furnishings. (Int. Newsreel.)

[11] Waehler, L. A., "Does the High School Teacher Do Too Much Clerical Work?" *Nation's Schools*, Vol. IV, No. 4, April, 1930, p. 49.

[12] "How One School Reduced its Instruction Costs," *Nation's Schools*, Vol. VI, No. 3, September, 1930, p. 65.

[13] Hunter, Fred M., "Efficient Expenditures of School Moneys," American School Board Journal, Vol. 76, No. 5, May, 1928, p. 43.

The New Tendency in the Tort Liability of School Districts

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It is now pretty generally known that school districts have very seldom been required to pay damages to persons injured by the actions or neglect of school boards or school employees. The reasons behind this usual nonliability are perhaps a little less well understood. Although in the years past, several reasons have been advanced by the courts in explanation and justification of this immunity, one reason lies basically behind all the rest. This is the old theory of governmental or sovereign immunity from suit.

In 1857, Chief Justice Taney of the United States Supreme Court in rendering an opinion in the case of *Beers* v. *Arkansas*,[1] stated this legal principle very clearly. "It is an established principle of jurisprudence in all civilized nations," declared Taney, "that the sovereign cannot be sued in its own courts, or in any other, without its consent or permission; but it may, if it thinks proper, waive this privilege and permit itself to be made a defendant in a suit by individuals or by another state. And as this permission is altogether voluntary on the part of the sovereignty, it follows that it may prescribe the terms and conditions on which it consents to be sued, and the manner in which the suit shall be conducted, and may withdraw its consent whenever it may suppose that justice to the public requires it."

The General Rule of Nonliability of School Districts in Tort

One might, not without reason, ask how this theory applies to school corporations. The principle as stated by Taney applies to both national and state governments. State governments cannot, therefore, be sued without their consent. Through laws passed for that purpose, all states have allowed themselves or their agents to be sued upon contracts. This has, however, not been true as to suits for damages based upon torts — wrongful noncontractual acts or neglects which have caused injuries. Permissive laws of such a nature have been and still are very rare. Since state governments are protected from suits of this sort, so also the agents of the state governments are covered by this immunity. Therefore, since school districts have been almost uniformly declared to be agents of the states, acting for the state governments in the matter of public education, which is a state business, these school corporations may not be sued for damages for results of wrongful actions or neglect any more than may the states themselves.

This theory of governmental nonliability is not one that has originated in this country. Indeed its roots extend far back into the early history of Europe, and probably farther still. It seems probable that it had its beginnings with the ancient legal principle that the king can do no wrong.[2] In those early days a subject might find his lands confiscated for a royal hunting preserve, his money taken, or himself thrown into prison without cause. Such an unfortunate had to suffer in silence. He found himself without cause of action toward his sovereign, for when that august personage did these things they did not constitute wrongs! The subject's only hope was a voluntary gift or recompense from the king. Out of this ancient theory, it is said, arose the principle still applied — that of sovereign or governmental immunity from suit. It seems strange that a theory descending from the despotic times should lie behind the legal reason why a school child injured by a piece of defective playground apparatus

[1] 61 U. S. (20 How.) 527, 15 L. Ed. 991.

[2] Borchard, Edwin M., Government liability in tort. *Yale L. J.* 34: 1; 35; 299 (Nov., 1924, Jan., 1925).

The reluctance of American states and local governments to take responsibility for the negligence of officials and servants is difficult to understand. In the present paper the welcome change which is coming is discussed for the benefit of school boards.—Editor.

is today so frequently unable to bring suit against the school district. Yet this is the case.

Until a short time ago the rule of nonliability of school districts in tort held full sway the country over, with scarcely an exception. Indeed it is still the law in all but a very few of our states.

This common-law rule which is so widely applied may be stated as follows: "*The school corporation as a branch or an agent of the state, engaged in the execution of the governmental function of furnishing education to the public, a duty involuntarily imposed upon it by the state, is in the absence of statute to the contrary, protected to the same extent as is the sovereign state from responsibility for its own torts or those of its servants, resulting either from misfeasance or nonfeasance in the execution of its public duty.*"[3]

I have listed below[4] the decisions of those courts of record that have held school districts not liable in suits in which injured pupils and other persons have sought to recover for their injuries from the school corporations. Behind all of these decisions, though not expressly stated in a few of them, lies the theory of governmental nonliability in tort. This list shows clearly how widely school districts are still immune from damage suits.

In a few instances the theory of governmental nonliability has not been expressly stated as the reason for denying recovery in tort actions. In those cases, the most frequent reason given for such denial has been that the funds in the keeping of the district have been placed there for the purpose of education only, that no power is given the school corporation to raise money by taxation to pay damages in tort actions, and that to allow school money to be used in such a manner would be ruinous to the public-school system.[5] In the early Pennsylvania case, *Ford* v. *School District of Kendall Borough*, this argument was used and stated typically.[6] In that case a pupil sued to recover for injuries received through the negligence of the school janitor who had thrown kerosene into a stove while the plaintiff and other children had stood closely about. In rendering a decision in favor of the district, the court stated its principal reason as follows:

"As, then, these districts can have no fund out of which to pay damages such as are claimed by the plaintiffs in this case, their recovery would be to no purpose. Moreover, to make school districts responsible for the misfeasance of their officers would, in many cases, prove injurious, if not destructive, to the public welfare. A weak and poor district is saddled with a heavy bill of damages — in this case, for instance, because a child has been burned through the negligence of the janitor; in another, perhaps, because there has been no fire, and a pupil's limbs have been frozen, or because the house was open, and it has caught a cold; it has been maltreated by the teacher, or has contracted spine disease, because of improper seats, etc. — and, as a consequence, the schools must be closed, and the ordinary taxation, perhaps for years, together with the state appropriation, must be applied to the payment of the bill. The rule heretofore has been that individual advantage must give way to the public welfare; but the proposition of the plaintiff is to make individual grievance override the public good — make the public funds the primary source of individual compensation. A child has been injured by the negligence of the school janitor; therefore stop the schools, and appropriate the money of the state and district for the purpose of compensating the child and its parents. This is certainly running the idea of individual compensation to the last degree of absurdity."

Evidences of the Beginning of a Break with the Old Rule

So uniform and complete has been the application of the common-law rule of nonliability of school districts for tort, that in only five states out of the twenty-three in which the question has directly arisen before courts of record, have any decisions allowed recovery. These five states are California, Michigan, New York, Oregon, and Washington.[7] However, it is interesting and especially significant to note that those cases which have broken with the old law of nonliability are all comparatively recent decisions. Significant, too, is the fact that although based on permissive statutes, every case dealing with this subject which was handed down by the courts of record in 1930 and in the first seven months of 1931 granted dam-

[3] Weltzin, F., *The Legal Authority of the American Public School*, School of Education Bulletin No. 7, Univ. of N. Dak., Grand Forks, N. Dak.

[4] ARIZONA: *School Dist. No. 48* v. *Rivera* (1926) 30 Ariz. 1, 243 Pac. 609, 45 L. R. A. 762.
COLORADO: *Olson Lumber Co.* v. *School Dist. No. 8* (1928) 83 Colo. 272, 263 Pac. 723.
ILLINOIS: *Kinnare* v. *City of Chicago et al.* (1898) 171 Ill. 332, 49 N. E. 536.
INDIANA: *Freel* v. *School City of Crawfordsville* (1983) 142 Ind. 21, 41 N. E. 312, 37 L. A. A. 301.
IOWA: *Lane* v. *Dist. Twp. of Woodbury* (1892) 58 Iowa 462, 12 N. W. 478.
KANSAS: *Rock Island Lumber Co.* v. *Elliot* (1898) 59 Kan. 42, 51 Pac. 894; *McGraw* v. *Rural Dist. No. 1* (1926) 120 Kan. 412, 243 Pac. 1038.
KENTUCKY: *Clark* v. *City of Nicholasville et al.* (1905) 27 Ky. L. Rep. 974, 87 S. W. 300.
LOUISANA: *Horton* v. *Vienville Parish* (1927) 4 L. App. 123.
MARYLAND: *State ex rel. Weddle* v. *Bd. of School Com'rs.* (1902) 94 Md. 334, 51 Atl. 289.
MICHIGAN: *Whitehead* v. *Bd. of Ed.* (1905) 139 Mich. 490, 102 N. W. 1028; *Daniels* v. *Bd. of Ed. of Grand Rapids* (1916) 191 Mich. 339, 158 N. W. 23, L. R. A. 1916F, 468.
MINNESOTA: *Bank* v. *Brainerd School Dist.* (1892) 49 Minn. 106, 51 N. W. 814; *Allen* v. *School Dist. No. 17* (1927) 173 Minn. 5, 216 N.W. 533.
MISSOURI: *McClure* v. *School Dist. of Tipton* (1899) 79 Mo. App. 80; *Cochran* v. *Wilson et al.* (1921) 287 Mo. 210, 229 S. W. 1050; *Dick* v. *Bd. of Ed. of St. Louis* (1922) 238 S. W. 1073; *Krueger* v. *Bd. of Ed. of St. Louis* (1925) 310 Mo. 239, 274 S. W. 811, 4 A. L. R. 1086.
NEW HAMPSHIRE: *Harris* v. *Salem School Dist.* (1904) 72 N. H. 424, 57 Atl. 332.
NEW YORK: *Donovan* v. *Bd. of Ed. of New York City* (1881) 85 N. Y. 117; *Reynolds* v. *Bd. of Ed. of Little Falls* (1898) 33 N. Y. App. Div. 88, 53 N. Y. S. 75; *Wahrman* v. *Bd. of Ed.* (1906) 111 App. Div. 345, 97 N. Y. S. 1066; *Katterschinsky* v. *Bd. of Ed. of N. Y. City* (1925) 215 App. Div. 695, 212 N. Y. S., 424. *These cases indicate the rule applicable only to torts of subordinates.*
NORTH DAKOTA: *Anderson* v. *Bd. of Ed. of Fargo* (1922) 49 N. D. 181, 190 N. W. 807.
OHIO: *Finch* v. *Bd. of Ed.* (1876) 30 Ohio St. 37, 27 Am. Rep. 414; *Bd. of Ed. of Cincinnati* v. *Volk* (1905) 72 Ohio St. 469, 74 N. E. 646; *Bd. of Ed. of Cincinnati* v. *McHenry* (1922) 106 Ohio St. 357, 140 N.E. 169.
OKLAHOMA: *School Dist. No. 1* v. *Wright* (1927) 128 Okl. 193, 261 Pac. 953.
OREGON: *Wiest* v. *School Dist. No. 24* (1914) 68 Ore. 474, 137 Pac. 749, 49 L.R.A. (N.S.) 1026; *Spencer* v. *School Dist. No. 1* (1927) 121 Ore. 51, 254 Pac. 357.
PENNSYLVANIA: *Erie School Dist.* v. *Fuess* (1881) 98 Pa. 600, 42 Am. Rep. 627; *Ford* v. *School Dist. of Kendall Borough* (1888) 121 Pa. 543, 15 Atl. 812, 1 L.R.A. 607, and note.
WASHINGTON: *Howard* v. *Tacoma School Dist. No. 10* (1915) 88 Wash. 167, 152 Pac. 1004. *District held liable here because of statute, but contains a good discussion of the common-law rule.*
WEST VIRGINIA: *Krutili* v. *Bd. of Ed.* (1925) 99 W. Va. 466, 129 S. E. 486.
WISCONSIN: *Juul* v. *School Dist. of Manitowoc* (1918) 168 Wis. 111, 169 N. W. 309, 9 A. L. R. 905; *Srnka* v. *Joint Dist. No. 3* (1921) 174 Wis. 38, 182 N. W. 325; *Sullivan* v. *School Dist. No. 1* (1923) 179 Wis. 502, 191 N. W. 1020.

[5] *Finch* v. *Bd. of Ed. of Toledo* (1876) 30 Ohio St. 37, 27 Am. Rep. 414; *Ford* v. *School Dist. of Kendall Borough* (1888) 121 Pa. 543, 15 Atl. 812, 1 L.R.A. 607; *Freel* v. *School City of Crawfordsville* (1895) 142 Ind. 21, 41 N. E. 312, 37 L.R.A. 301; *Cochran* v. *Wilson et al.* (1921) 287 Mo. 210, 229 S. W. 1050.

[6] (1888) 121 Pa. 543, 15 Atl. 812, 1 L.R.A. 607.

[7] This is excluding the matter of recoveries allowed against school districts where loss has been sustained through school boards' neglect to take contractors' bonds. This is discussed later. The single Michigan case is a decided exception to the rule usually applied in that state as will be shown later.

ages to the injured persons and against the school districts. In fact, we now say with a fair degree of fidelity that there seems to be a perceptible movement toward granting at least some degree of recovery against school corporations in tort actions.

Let us trace the history and development of this new movement. In the following, there is set forth a complete account of this new tendency in all the aspects and instances in which the matter has entered judicial records. This movement should be of vital interest to the administrators and the supporters of our public-school system. For this reason the material here set forth has been carefully documented so that it may safely be used as an authoritative reference.

The old common-law rule is not based upon statute, but solely upon previously determined cases. Legislative enactments take precedence over such common-law principles, which are pertinent law, therefore, only in the absence of statutes to the contrary. A few state legislatures have passed laws which have changed to a degree or even annulled the old common-law rule of school-district nonliability, and have thus allowed suits in tort to be brought against school corporations. Let us first review these statutes.

The Minnesota Statute

Perhaps the oldest legislative enactment bearing upon this point is the one which has been upon the statute books of the State of Minnesota continuously since 1851.[8] However, as we shall point out, this law has never had the effect its words seem to imply. In the laws of 1877 this law was expressed in the following terms:

"*What actions may be brought against trustees.* An action may be brought against them in their official capacity, either upon a contract made by such officers in their official capacity, and within the scope of their authority, or for an injury to the rights of the plaintiff, arising from some act or omission of such officers of the district. . . ."[9]

Although this statute remains in the Minnesota laws to the present day,[10] nevertheless judicial construction has destroyed its seemingly evident meaning so that never has this law been used to permit a tort action against school districts.

The first instance in which the matter arose was in the old case *Bank* v. *Brainerd School District*, determined in 1892.[11] In that case a pupil was injured by falling over a stump that had been allowed to remain in a school yard. The court was, no doubt, apprehensive of opening up school districts to such actions as this, for it refused to recognize the statute as granting permission to bring such suits against school districts. This attitude has been followed consistently by the courts of Minnesota down to the present day. However, it is significant to note in a rather recent case a judge writing an opinion of the supreme court hints that, if it were not for the fact that the old Brainerd case had been followed so long, recovery might have been allowed under the statute.[12] This case, too, was decided as the Brainerd case was, against allowing the suit, and so also have two other cases in which the same question has arisen since that time.[13]

We have, then, in the case of Minnesota an instance where it seems quite evident that the legislature originally intended that the strict, old common law should not apply to school districts, but a case, also, in which judicial interpretation has made such an intention, if there was one, entirely inoperative.

[8]Chap. 79, §§ 12, 16.
[9]Laws 1877, c. 79, subd. 8, § 1; Comp. Laws 1878, § 117.
[10]Mason's Minn. St., 1927, Vol. I, § 3098, p. 720.
[11]49 Minn. 106, 51 N. W. 814.
[12]*Allen* v. *Independent School Dist.* (1928) 173 Minn. 5, 216 N. W. 533.
[13]*Mokovich* v. *Independent School Dist. of Virginia* (1929) 177 Minn. 446, 225 N. W. 292; *Bang* v. *Independent School Dist.* (1929) 177 Minn. 454, 225 N. W. 449.

ESSENCE OF ADMINISTRATION

Natural and proper interest in the education of children will result in satisfactory schools only when there is a local unit of administration sufficient in size to provide such schools, and so organized that the people through both legal and voluntary machinery, may express a composite voice in control and management. No matter how desirous an individual may be for good schools, those desires can bear fruit only when he is associated with a considerable number of other individuals of similar desires and together they have an opportunity to express themselves through organization. — Ray P. Snyder, Department of Education, New York.

The Oregon Statute

The situation in the State of Oregon has been somewhat similar to that in Minnesota, save for the fact that in one late instance recovery has been allowed. A statute quite similar to the Minnesota law has been upon the books in Oregon for a long period of time. Before the year 1887 this enactment appeared in the following form:

"An action may be maintained against a county or other of the public corporations mentioned or described in section 346, either upon a contract made by such county or other public corporation in its corporate character, and within the scope of its authority, *or for an injury to the rights of the plaintiff, arising from some act or omission of such county, or other public corporation.*"[14]

But in 1887 this statute was amended by the insertion of the clause "in its corporate character, and within the scope of its authority" in the second half of the law as well as in the first half, so that the pertinent part of the law as it now stands reads thus:

"An action may be maintained against any of the . . . public corporations of this state mentioned in section 357 *in its corporate character and within the scope of its authority,* for an injury to the rights of the plaintiff arising from some act or omission of such other public corporation."[15]

That school corporations are included in this section is seen by a perusal of section 357, aforementioned, where we find them specifically mentioned thus: "any country, incorporated town, school district, or other public corporation of like character in this state. . . ."[16]

Since by this statute it seems that actions may be taken against school districts under the amended statute only for torts arising in a district's *"corporate character,"* and *"within the scope of its authority,"* it has become vital to determine which functions of a school district are *corporate*, as opposed to governmental, and which functions are and are not *within the scope of the district's authority*. For torts in relation to governmental functions and those outside the district's scope of authority there seems to be no right of action granted.

[14]Code Civ. Proc., Deady & Lane Gen. Laws, § 347. (Italics inserted.)
[15]Laws 1887, p. 45; Oregon Laws 358. (Italics inserted.)
[16]Oregon Laws, § 357.

To maintain a position at the very forefront of the army seeking to secure the finest things for this generation, and the next, and the next, yet not to be so far in advance as to break liaison with the seasoned and selected shock troops who have already won and now hold valuable advantages for civilization, must be the constant concern of the leader in education. In this advance guard he will meet a determined, broad-minded, and high-minded group of embattled captains, with whom he will take counsel. From the ensuing give and take of ideas will emerge a body of effective measures for action which should result in further substantial gains for humankind.— Dr. Orwin Bradford Griffin, Superintendent of the Public Schools, Litchfield, Connecticut.

These distinctions were used in a very peculiar way upon the first occasion in which the question arose. An Oregon school board decided to dismiss a teacher. The conclusions of a meeting called to consider the matter were formally entered upon the board's record in these words: "It was moved and duly seconded that W. A. Wiest be dismissed as teacher in the public schools of District No. 24, Marion County, Oregon, for immoral conduct and behavior unbecoming a teacher with one Laura DeBard, which motion being placed before the board received the affirmative vote and was by the chair declared carried, and the chair declared said W. A. Wiest duly dismissed as a teacher in the school. . . ." Now the dismissed teacher declared that these accusations were false and that they were actuated by malice, and sought to recover damages from the school district. The board unable to prove the charges admitted by demurrer that the statements were false. Although a private person making such false charges would have been held liable, the Supreme Court of Oregon to which the case was appealed, sustained the demurrer, and released the board from liability.[17]

The interesting point in the case to us here is that one of the reasons why the recovery was not allowed against the district, as advanced by the court, was that the board was not authorized to commit a tort, to be careless or negligent; that when a board commits a wrong or tort, it does not in that respect represent the district; and, that, therefore, for such a tort the district itself may not be held! In a fashion, then, here was a matter *outside the scope of the authority* of the board which was acting for the district. A very significant line of reasoning, one might well say, for a school district being a corporation must *always* act through its board and if the district is not to be held for the wrongs of the board, it is impossible that the district ever could be held for any tort in any sort of capacity — governmental *or* corporate.

However, in the next case in which this question arose, this line of reasoning was not used, but the distinction between a district's corporate and governmental functions was made. *Spencer* v. *School District No. 1,* was determined in 1927.[18] In this case a pupil had been injured by a radiator which, it was alleged, had been negligently placed in a gymnasium in a school. "The determination of the question in the case," said Justice Bean of the Oregon Court, "depends upon whether the school district, in the maintenance of its school building, was acting in its proprietary or corporate character or in a public governmental capacity." If the duties of the school in relation to maintenance of buildings, under which head providing heating would come, were to be regarded as corporate, then the district could be held liable under the statute aforementioned; if, however, such functions of the district were to be regarded as governmental, then there would be no such liability. The latter position is the one which the court took, thereby denying recovery against the district. But what is more significant, the court stated that it was probable that not only the maintenance of buildings, but *all* work of the school was governmental "A school district under our statute," said the court, "is merely an arm of the state, for the administration of its school system. In the construction and accouterments, *if not in all matters,* it functions as an agency of the state and not in a private or proprietary capacity."[19]

(To be continued in April)

[17]*Wiest* v. *School Dist. No. 24* (1914) 68 Ore. 474, 137 Pac. 749, 49 L.R.A. (N. S.) 1026.
[18]121 Ore. 51, 254 Pac. 357.
[19]*Ibid.* (Italics inserted.)

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WM. GEO. BRUCE WM. C. BRUCE

The Era of School-Finance Readjustment

THE school finances throughout the country are in process of readjustment to conform with a new economic era. The production ability of the industrial world has gone beyond the power of consumption. The commercial channels have carried sales efficiency to the extreme, while those in control of the financial failed to calculate the future with any degree of accuracy. The crash was inevitable. What has happened? Values have dropped. Property interests have declined. Real estate, material, and labor have experienced a reduction in value. The confusion which attended the sudden change caused a general business stagnation.

The interrelation between commerce and government is reflected in the fact that a lowering in property values means a lowering in tax revenues. The fact that everything is on a lower cost basis means that government — and this includes the cause of education — must be carried on upon reduced cost figures.

While the terms retrenchment, slashing, and cutting are employed in these days with a painful frequency, the fact remains that the process of readjustment is in progress. That readjustment, as far as the school interests are concerned, does not necessarily mean a lowering of standards of efficiency, but moreover the culling out of the nonessentials and the calling of a halt on proposed new departures and expansion programs.

Thus the transition from the old to the new, namely, the readjustment of school finances, involves consideration of a reduction in the cost of administration in the light of a changed economic condition. A decline in property values is reflected in a reduced tax income which cannot be ignored by the administrators of the American system of popular education.

While the task confronting the school administrators involves economies hitherto unthought of, it will also draw a stronger line between the things that are imperative and vital and those that are merely desirable and attractive.

On the other hand, it will prompt a closer inquiry into the system of taxation through which the public revenues are secured. The failures and shortcomings here will assert themselves and awaken statesmenship into action that will make for a more equitable distribution of the tax burden, as well as a more adequate support for the schools.

The cry of alarm which certain educators raise and have raised in the past when readjustments were in progress, is uncalled for. The schools of the country on the whole are not facing a crisis. There are some weak spots here and there. A single school district may not have enough money to carry on, or a city may be in financial distress, but the great 99 per cent of the school centers of the country are well able to conduct their school labors upon accepted lines, and will continue to do so.

The alarmist, who shouts that a crisis confronts the school interests of the country, at this time, is doing more harm than good to the cause of education. Besides, the claims of the alarmist are not founded upon fact. The school interests are in the main upon a sound financial basis.

It finally remains that the schools of the nation are under the control of a citizenship that is not only loyal to the cause of popular education, but that is also sufficiently resourceful to maintain the highest standards of efficiency. The weak spots will be strengthened, the distressed school districts will find their relief, and the problem of adequate support will ultimately find solution. The American schools will continue to function upon the same high plane in the future that has characterized them in the past.

Safeguarding Bank Deposits of School Funds

THE failure of local banks has seriously affected the school interests of a number of communities. In such instances the school system whose funds have been tied up in closed banks has usually found itself in an embarrassed situation. While in some cases the amount on deposit was nominal, in others it was quite substantial.

The subject suggests the thought that a bank chosen as the depository for school funds should be placed under some form of bond whereby in case of failure the funds are rendered secure. While men in positions of trust are bonded against defalcation of the unlawful use of funds, there is no reason why a bank deposit should not be insured against failure.

When recently the treasurer of a board of education in a Wisconsin city was asked to provide a surety bond, he readily agreed provided, however, that the bank which carried the school fund on deposit was likewise bonded. The board saw the point and exacted a surety bond from the bank.

In the State of Michigan a school board recently brought suit against the trustees of an insolvent bank and won their case on the plea that according to the state law school funds were trust funds, and hence entitled to payment in full. The court held that if there was sufficient cash in the bank at the time of failure the claim must be paid.

While such laws do not obtain in all states it would seem that those in charge of school funds should not hazard such funds without taking precaution against failure. While the stability of a bank is usually known to the community, it develops, too, that when things are wrong the discovery usually comes too late. Where calamity has followed it was because school officials did not question the stability of the bank which held their deposits. Statistics go to show that during the past ten years there have been over 6,000 bank failures in this country. The losses sustained run into high figures and the school interests have not escaped them.

It is only reasonable to assume that a school fund should be regarded as a trust fund, and where state laws do not provide the proper safeguard such laws should be amended accordingly. This statement is more particularly made in the light of the fact that bankers have, in instances, refused to provide bonds for the safeguarding of school funds. In sixteen states, out of twenty-six that require security, the banks are permitted to issue bonds and thereby in case of a crash make the school treasury a preferred creditor. Then, too, in some communities the school authorities exact for their deposit collateral security in the form of federal, state, or municipal bonds.

The selection of a school depository is an important and sacred task. It needs no discussion to demonstrate the embarrassments that may overtake a school system as the result of heavy financial losses. It devolves upon the board of education to apply sound business judgment, ordinary caution, and circumspection to safeguard the school treasury against any and all emergencies.

School Architecture—Retrospective and Prospective

THE achievements of that architecture which has played such an important part in the rearing of a great nation, cannot be discussed without devoting a chapter to school architecture. If new forms of expression have been found for churches and theaters, for libraries and fraternal structures, for banks and office buildings, for homes and hospitals, it also follows that new conceptions and interpretations have been found for the modern school structure.

It may safely be asserted that the modern schoolhouse is a distinctive achievement in the field of American architecture. It embodies not only the finer conceptions of architecture as an art, but it has also brought to its service the latest offerings in the field of science as exemplified by engineering skill and ingenuity.

Whatever of the arts and sciences that has gone into the general building industry of this country it is safe to say that the modern school structure receives more than an ordinary share. While every class of buildings calls for its own peculiar utilities, it follows, too, that the schoolhouse has needs which are best met by the offerings

of a modern day. The ambition of the architect on the one hand to excel, and of the school administrator on the other to secure a highly utilitarian structure, have been the mainspring of the school architect of this country.

Much might be said on the subject of building materials which are now employed and were scarcely known a few decades ago. "In our hands are new things to build with; structural steel, noncorrodible sheet metal, asbestos products, and a dozen others," said William Orr Ludlow, of the American Institute of Architects, recently. "Reinforced concrete, the elevator, and the steel skeleton are revolutionizing building, and will revolutionize architecture. They will make the age-old necessity of horizontal building a thing of the past; they give verticality a new and unlimited dimension."

But what applies to materials employed, or the new methods employed in manipulating them, is likewise true of the matter of equipment. The range of devices that now find their way into a modern school building is surprising. While they make for safety and convenience, they make on the whole for greater efficiency in the operation of a school plant.

It may finally be said that at this time money will buy a handsomer and more utilitarian schoolhouse than it ever did in the history of the nation. This is not entirely due to the fact that building costs, as a whole, are lower now, but also because architecture and construction methods have progressed tremendously.

The business depression will undoubtedly place a temporary check upon schoolhouse planning and construction. At the same time it should be remembered that the present school buildings will become obsolete and must be replaced by new structures. The school population will increase steadily from year to year and will require additional school sittings.

During the world war the construction of schoolhouses in this country was halted and had to be met by increased building operations after the war at a high cost. The situation is quite different now. While certain communities have suffered a reduced tax income the great run of communities enjoy an unimpaired credit and could engage in building operations if the need for them arose. At any rate, it is hard to imagine that a more favorable time for securing good school buildings at a reasonable cost will present itself in the future.

A *Board-of-Education Committee on Public Relations*

FOR the first time in its history the board of education of Massillon, Ohio, has established a so-called committee on public relations. As far as our knowledge goes, it is the first attempt anywhere in the direction to maintain an agency that should serve as a connecting link between a board of education and the general public.

The idea is a new one. Various methods have been employed in the past to keep the public informed on school administrative affairs. The public press has been the most popular medium for the dissemination of school news. The appearance of the superintendent of schools and the president of the board before public audiences, to discuss school affairs, has also proved quite helpful. Likewise printed school reports have found their way to the public.

The Massillon board of education is desirous of promoting a better understanding between the citizenship and itself and thereby securing closer coöperation in school matters. The editor of the *Massillon Independent* in commenting on the move says:

"It is gratifying to observe the intense interest of the new board members in the problems which confront them. The three newly elected members are able men and well qualified for the public offices which they won at election last November.

"Best of all they desire the assistance and advice of their constituency. They seek to convert the proverbial indifference of the private citizen toward the acts of public officials into a coöperative attitude. Instead of ruling as a commission, remote from the influence of public opinion, they seek to conduct their affairs in accordance with the demands of public opinion. They are for home rule in school affairs, as opposed to foreign control, a proposal which has been started on the way to full flower through the demand for a department of education in the president's cabinet. The position taken by the local board is another obstacle in the way of a federal bureau, manned by high-priced executives and a horde of pestilential jobholders and inspectors. The more home rule in our public schools, provided by competent citizenship, the better."

The committee must be regarded as an experiment. The tendency in the field of school administration is for the abolition rather than the creation of new committees. In the light of a disturbed public mind it may be found that a public-relations committee will stand ready to confer with civic and business bodies in communities where greater coöperation is desired may prove a useful innovation.

A *Tendency to Belittle Boards of Education*

THE modern board of education has not only become a fixed institution but also an indispensable factor in the nation's system of public education. It constitutes the legislative, judicial, and administrative body which controls the financial support that goes toward their maintenance and operation of the schools, governs the general policies that guide them, and thereby determines the destinies of popular education.

Upon the policies of that body depend the kind of character of the professional service that is employed, the housing that is provided, and the support that the system, as a whole, enjoys. These policies recognize the superintendent as the chief executive and educational expert of the school system. They clothe him with the widest possible authority in all matters of a strictly educational character, and hold him responsible for the results attained.

In brief, the status of the board of education, as an important and essential factor in America's system of popular education is fully accepted and established. In the light of that fact it would seem superfluous to discuss the subject any further, and yet it seems expedient from time to time to call attention to those who seek to belittle the real function and mission of the modern board of education.

There are those who would like the public to believe that the schools are solely in control of the professional factors, and that the board of education is a mere rubber stamp. They willfully distort the truth in order to undermine the prestige and standing of the administrative body. There are those, who in cultivating the good will of the professional factors, seek to belittle in the eyes of the business public the administrative powers lodged with the board of education. The educator who understands the motive of such agitation is not readily impressed. He knows the scope and function of the several factors, and the relationships that necessarily govern them.

School Elections and the Lack of Public Interest

THE fact is that, considering the small percentage of the people that bothers to vote in the school elections, the community is at present far better served by its school board than it deserves." This paragraph appears in an editorial, discussing school elections, recently published by the *Herald,* of Duluth, Minnesota.

What applies to Duluth applies to many other communities where the public fails to manifest a proper interest in school elections. Sometimes it is said that this apathy is due to a feeling of assurance that things are going along satisfactorily. More often, however, indifference is due to a lack of appreciation of the fact that the schools constitute an essential part in the training of the youth for citizenship, and that they are vital to the stability and perpetuity of a great nation.

The citizen who is really concerned in the efficiency of the schools must manifest that concern at a time when the guardians thereof are to be chosen. He forfeits his right to criticize those who run the schools if he fails to record his vote on election day.

The cause of popular education is sufficiently important to entitle it to the active interest of an entire voting constituency rather than a minority fraction thereof. Where the unworthy have found entrance to board-of-education membership the cause has not been far to seek. The mass of the citizenship has through its apathy permitted an active and selfish minority to carry the day.

Thus it may be said that the majority is to blame when an inferior body has been chosen, and if perchance, in the face of apathy, a good school board is chosen the community "is better served than it deserves."

School Administration in Action

Our Deeds are sometimes better than our Thoughts—Bailey

A Self-Rating Score Card for School Janitor-Engineers

H. E. Jenkins, Superintendent of Schools, Girard, Kansas

The time has gone when janitors could be selected because of their *need* and *worthiness* for the place. The time is past when any old, crippled, or poverty-stricken man was looked upon as the proper individual for the custodianship of a public school. And the school janitors themselves have largely been responsible for the change in public viewpoint. School janitors are making, and have made, their work a scientific procedure. They have organized themselves into "Janitor-Engineer" associations; they are found every summer, hundreds of them, attending janitor-engineer training schools; and they are reading every possible form of literature that will help them to do their work more efficiently and make them more worthy of the title, "Janitor-Engineers."

Much good has come of this movement. The individual who has in his charge the management and care of thousands of dollars worth of school property, the individual who has such a direct influence on the health of hundreds of school children; the individual who has such a direct bearing on the conditions under which schoolwork goes on; in other words, the school janitor, is receiving a long-delayed recognition.

Janitors, like teachers, can best improve *themselves*. The method of analyzing desirable traits with the idea of self-improvement has been of much value to the teachers of the nation. Likewise, the new school janitor-engineer, with his new recognition as an important member of the school staff, and with his resulting new-born desire to improve himself, may well use a self-rating score card to rate himself.

The Score Card

The score card presented below has been presented to, and used by, members of a state janitor-engineer association with some good results. It consists of eleven items upon each of which a janitor-engineer rates himself as follows:

If you think you are "perfect" in the item mentioned, score yourself three points. If you rate yourself as "good" on an item, score yourself two points. If you rate yourself "fair" and therefore need much improvement in that quality, score yourself one point. If you rate yourself "poor" in any item, and therefore need very much improvement in that quality, score yourself zero.

A perfect score is 33. Any good janitor-engineer will score at least 27 points.

Self-Rating Sheet for Janitor-Engineers

My Score	*Item*
.....	1. Am I industrious?
.....	2. Is my work always well done?
.....	3. Do I see what is to be done, and do it, or do I have to be *told* what must be done?
.....	4. Do I practice economy in the use of school equipment and supplies?
.....	5. Do I use time-saving methods?
.....	6. Do I use labor-saving methods?
.....	7. Am I progressive?
.....	8. Am I reasonably neat and clean in appearance?
.....	9. Are my personal habits such as they should be to be around children?
.....	10. Am I loyal to other workers in the school system?
.....	11. Do I like my job?
.....	Total points.

Item No. 1, "Am I industrious?" asks a question that anyone desirous of doing a really good job must ask himself, Do I give a full day's work to my school? Or do I "slack"? Anyone who succeeds in any work works *hard*, and any school janitor-engineer who is worthy of the name is willing to do so.

A Well-Done Job

Item No. 2 suggests that in the work of a school janitor-engineer, as in any other vocation, it is necessary that the job be *well done*. Do I do everything as it should be done, rather than half done? Do I do all work well even though it does not show; for example, do I sweep behind the radiators?

On Item No. 3 the janitor-engineer rates himself upon his executive ability. A man may possibly be a good janitor-engineer if he does well what he is *told* to do. But how much *better* he will be if he sees what is to be done and does it properly *without* being told.

Item No. 4 is especially important in the present period of financial stringency. The janitor-engineer should ask himself such questions as: Do I see that my equipment is properly stored? Do I waste supplies? Do I ask for unnecessary supplies? Do I do my best to secure efficient results at low cost for my school district — and thus make myself more valuable to the district?

Item No. 5 indicates a characteristic of the modern janitor-engineer. To be worthy of that title a man must plan his work so that he can accomplish much. He realizes that the efficient worker conserves his time by careful planning and thus renders more service to his school.

Item No. 6 is closely related to Item No. 5. Do I "use my brains to save my back"? I know a janitor-engineer who grew tired of wheeling ashes up from a boiler room and who, therefore, *invented* his own ash lift particularly adapted to his own boiler-room conditions. He used labor-saving methods, saving his energy so that he made himself more efficient in caring for his building.

Using New Methods

Item No. 7 is also a common quality found in modern janitor-engineers. Such men are anxious to find better methods of working; they are anxious to use the results of research if research can offer them better methods. The old-time janitor was not interested in new methods; he preferred to do things as he had "allus done" them.

Item No. 8 is an important quality. The modern janitor-engineer tries to keep himself presentable. When at work or otherwise on duty he wears a neat uniform, which brings out the fact that he is a responsible school employee. He does not "look like a tramp who has wandered into the school building."

Item No. 9 suggests that the school janitor-engineer must be careful of his personal habits when he is in his school building. He realizes that the use of tobacco or liquor makes it more difficult for him to carry out his work and at the same time makes disciplinary problems by setting a bad example for children. He realizes that he must be careful to avoid profane language, etc.

Item No. 10 stresses loyalty. As Elbert Hubbard said, "If you work for a man, in heaven's name work *for* him." Be loyal. Be loyal to your fellow workers — teachers, fellow janitor-engineers, principal, superintendent, board of education, etc. Loyalty always pays big dividends and assures efficient and happy working conditions. The modern janitor-engineer is *loyal*.

Finally, Item No. 11 suggests that the janitor-engineer of the present day *likes his job*. Every job has disagreeable phases just as it has pleasant ones. But the school janitor-engineer, with his newly delegated responsibility, his newly recognized dignity, and his new possibilities by reason of increased recognition should enjoy his work — as one in which he renders a real, definite service. He likes his job because it is a *real* job for a highly competent man — a janitor-engineer instead of the old-time "janitor."

The Cost of Absences of Teachers at Rocky Ford, Colo.

James H. Wilson, Superintendent of Schools

Several years ago, the board of education at Rocky Ford, Colo., adopted a definite policy governing the payment of school employees during illness. Under the policy in operation, one week's time — five days for teachers and six days for custodians and office help — have been allowed annually to employees in the schools. This sick-leave absence is cumulative to a total of twenty days. For instance, if an employee has not been absent during the year, five days' credit is carried over into the next year. If no absences are recorded for the second year, ten days for sickness allowance are credited at the beginning of the third year, and these allowances are extended each year until a total of twenty days' absence may be accumulated. If a teacher during the third year is absent nine days due to illness, she will have a credit of six days to be carried over to the beginning of the fourth year. No more than twenty days in any one year will be credited to an employee. In case the limit of time is exceeded, deductions will be made at the rate of one 180th of the teacher's annual salary.

The plan of cumulative absences affects from 52 to 55 employees annually, and has been in successful operation during the past six years — from 1925 to the present time.

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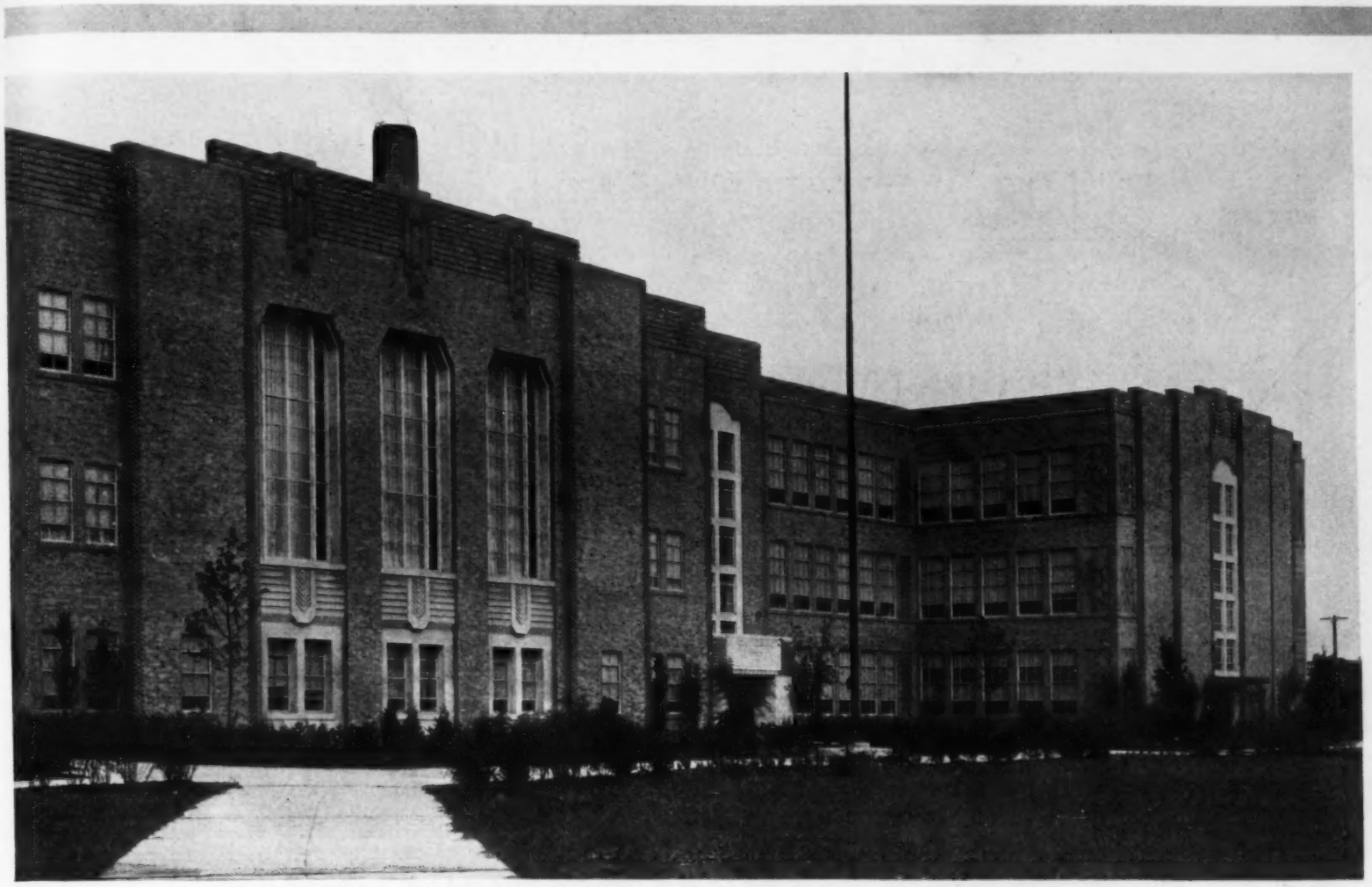

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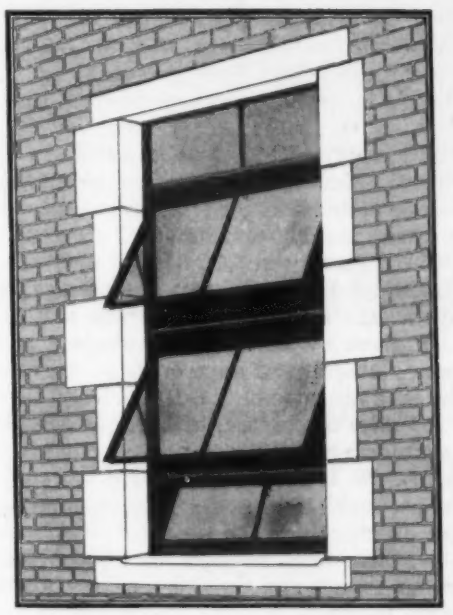

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(Concluded from Page 56)

A tabulation of the record of absences shows that during the year 1925–26, there were a total of 113 days of absence; 27 persons were absent, and the average of days absent for each absentee was 4.1. Six teachers were absent 1 day each, and 11 teachers lost 2 days each. In 1926–27, there were 208 days of absence, a total of 34 persons were absent, and the average of days absent for each absentee was 6.08. In 1927–28, there were 164 days of absence, with 38 persons absent, and an average of days absent by each absentee of 3.5. In 1928–29, there were 164 days of absence, with 42 persons absent, and the average days of absence amounted to 3.9. In 1929–30, there were 162 days of absence, with 34 persons absent, and an average absence for each absentee of 4.6. In 1930–31, there were 81 days of absence, with 25 persons absent, and the average days absent amounted to 3.1.

In 1926-27, there were a great number of absences, and the longest total average per teacher was 6.08 days, which was attributed to an influenza epidemic which occurred near the close of the year, and which affected a great number of teachers. In the year 1928–29, the greatest number of teachers, 142, was affected, and the lowest number of days' absence was noted.

In a study of deductions from teachers' salaries, due to absence from school it was shown that, during the 6-year period, there were a total of 15 teachers who suffered deductions, with the absences varying from 1 day to 16 days. There were a total of 225 7/12 days of absence for which deduction was made, and the average rate of deduction was $8.27. The total deduction for all teachers during the 6-year period amounted to $1,014.73, which on the basis of 15 absentees, is an average deduction of $67.65 for each teacher.

During the period, the greatest number of days of absence without pay was 21, the greatest loss in pay per day for any teacher was $10, the largest total deduction per person was $142.94; and the largest combined deductions for a year were $209.56.

During the year 1927–28, the largest payment for substitute teachers, as well as the greatest net cost to the district occurred.

During the six years the district paid substitutes a total of $3,079.77, which was offset by deductions from teachers amounting to $1,016.94. The net cost was, therefore, $2,062.83, or an average net of $343.80 per year.

Since the average cost is around $350 a year, or one third of 1 per cent of the yearly budget, this is not considered excessive in view of the peace of mind of the teacher and the assurance of pay when a short illness strikes her. The bad part of the plan is that there is no provision for health insurance to protect the teacher against this deduction, which is made when the illness has exceeded the time accumulated.

The present plan has worked well so far as the district is concerned. While there may be an occasional teacher who is inclined to stay at home when she might be in the classroom, the majority of teachers are anxious to keep their records clean, and have a greater number of days accumulated in case of a serious illness.

The Teacher Oversupply and A Remedy

An attempt to solve the teacher-unemployment problem has been made in California. Superintendent Percy R. Davis, of Santa Ana, entered upon a study by ascertaining the number of unplaced teachers, which he placed at 2,365, and enumerating the institutions in which they had secured their training. Of these, 1,202 are inexperienced, 621 had experience in California, 281 outside of California, and 261 had experience both in and outside the state. Before entering discussion upon an ultimate solution, Superintendent Davis touches upon the question of immediate relief. Here he says:

"Cases altogether too numerous of real financial distress among teachers who have been unable to find employment have been called to the attention of school people in various parts of the state. The necessity of caring for its worthy and unfortunate members temporarily would seem to be a definite responsibility of the profession. Assurance has been given that the employed teachers of the state will respond to appeals for funds for this purpose. Certain of these cases are in immediate need of assistance, and aid should be extended at once, even prior to the survey outlined above."

Contributing Factors to Oversupply

Superintendent Davis holds that some of the contributing factors to the teacher oversupply cannot well be ignored. He says:

"One of these factors, and the one perhaps most frequently commented upon, is that there are a large number of married women engaged in teaching in the public schools of California, many of whose husbands are earning an income sufficient to support the family. The argument is advanced that such teachers, economically secure, are depriving unmarried women teachers of a means of income, and it is advocated that, other things being equal,

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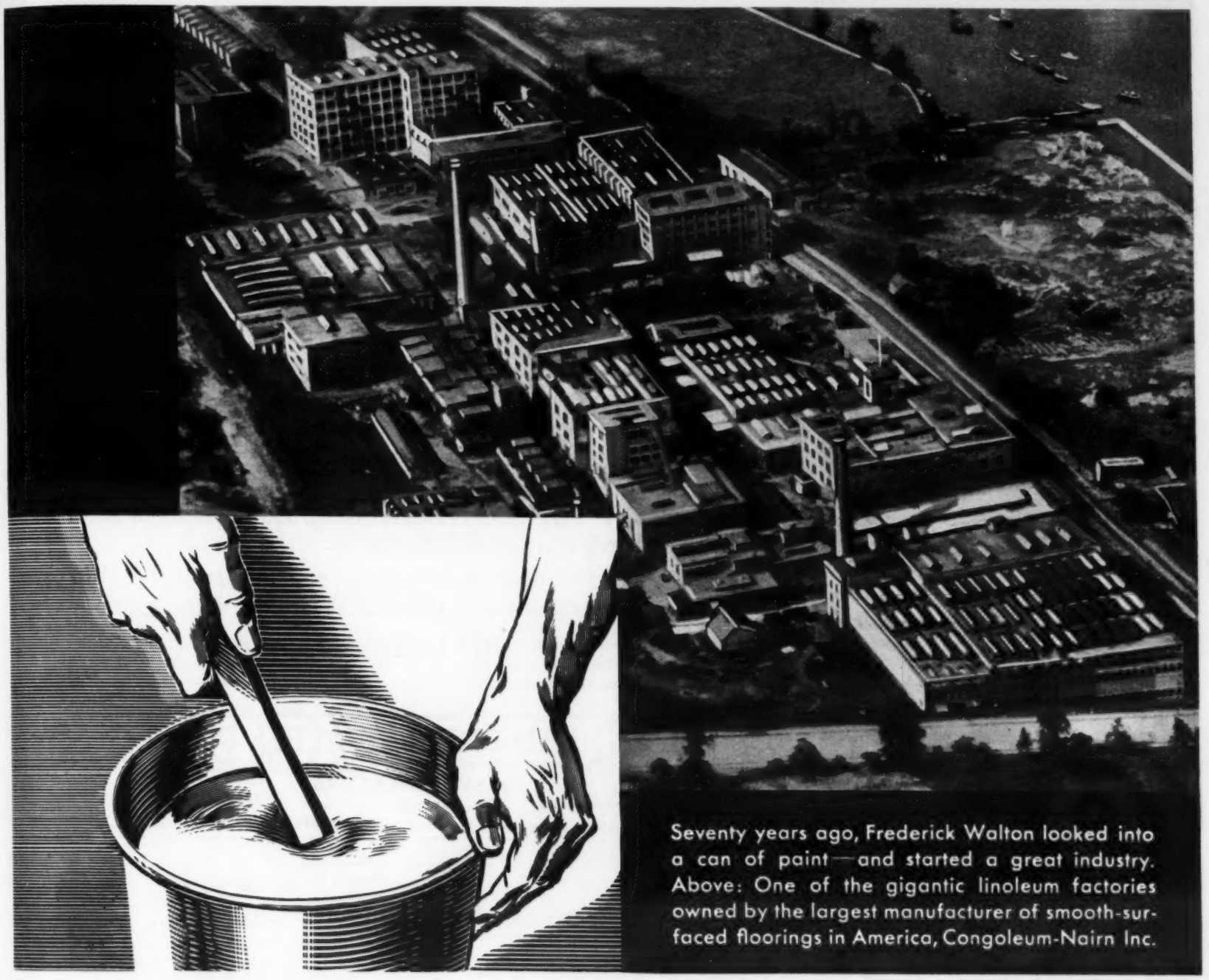

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such as training, professional fitness, and teaching ability, the unmarried women teachers should for the present at least be selected by employing authorities in preference to the married teacher. In support of this contention it is pointed out that recent studies show that 50 per cent of the cities in the United States of over 10,000 population do not permit the employment of married women teachers."

In the direction of a remedy it is suggested that an immediate reduction be made in the credentials granted to new applicants. "The reference here in particular is to the granting of temporary and emergency credentials of the general type by the state department of education, the credentialing of candidates from other states, and the awarding of certificates by county boards of education.

"In these matters, public-school officials can definitely assist in relieving teacher unemployment. If temporary and emergency credentials are not requested by them, the state department certainly will not grant them, and when such credentials are requested personally by superintendents the state officials are embarrassed in refusing them. It is to be questioned as to whether in the past the principle has been strictly followed that an emergency credential should not be requested unless the person concerned is the only possible teacher available for the position.

"A state policy which would permanently prevent the credentialing of competent teachers coming from other states would be impossible to defend from an educational standpoint, and in addition would react in all probability against California-trained teachers seeking employment elsewhere. As an immediate relief measure, however, the suggestion that the State Department place a percentage limitation temporarily upon the number of outside candidates credentialed would seem sound, if possible under the law."

A State-Wide Policy

"A state-wide policy upon the part of school officials of encouraging employed teachers, if able to do so, to take leave of absence for the coming semester or school year for further training, travel, or recreation would doubtless result in temporary assistance to many unemployed teachers.

"An important contributing factor to the teacher surplus especially for the current school year is the sudden rather general and decided increase of teacher pupil load throughout the state. Under pressure exerted by tax-gathering authorities during the present difficult economic condition, school officials operating on reduced budgets have been compelled in some cases to increase the average number per class, and in other cases have acquiesced in such an increase even when not forced by sharp reductions in budgets."

Superintendent Davis, in discussing the remedies for future oversupply, says: "The prevention of future teacher oversupply centers about the problems of higher standards for credentials and the elimination of those less fit for teaching service.

"Considerable difference of opinion seems to prevail as to whether or not the state should make further demands along the line of present requirements for the general credential, such as, more course work, a longer period of training, or higher standards of college achievement."

"If minimum standards for certification are to be raised by the state for the purpose of guaranteeing better teachers to the schools, many students of the problem believe that requirements of an entirely different nature should be demanded, rather than that those used at present be increased. Studies of teaching success which have been made and which can be made, may point to what those requirements should be. If state standards are to be raised for purposes of elimination, the same studies may also show what type of person applying for credentials should be eliminated. Studies of the criteria set up by employing agencies, and of the bases of teacher rating by supervisory officers may further assist in determining those standards.

"In summarizing these are the principal features of the program suggested: first, a survey of teacher unemployment to ascertain the facts; for immediate relief, a loan or relief fund, the preference in selection of able unmarried women teachers, the discouragement of the issuing of emergency, county board, and out of state credentials, the use of teaching duty assignments, and opposition to the increase of teacher load; for future remedy, the improvement of state credential standards, more rigid and scientific selection of prospective teachers by training institutions, an organized effort to abolish the life diploma and to revise the teachers' tenure law."

SCHOOLS OBSERVE NATIONAL CHILD HEALTH DAY

The schools of the country will observe child health day on May 1, 1932. The American Child Health Association has issued a call for the general observance of the day and offers to supply suggestive material for the use of the teachers in the classrooms. The association has called attention to three primary necessities of child health day, namely, the nutrition of children, a clean and safe milk supply, and protection of motherhood. All of these are necessary. The growing child must utilize to the best advantage the food it receives, sunshine, and relaxation. During 1932, even more than in recent years, the citizens should be interested in promoting the health of the children in the community.

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Book News and Reviews

Abuses in Sample Textbooks

J. B. Edmonson, Dean, School of Education, University of Michigan

There is probably no other business enterprise that is expected to distribute free samples in any such wholesale fashion as the American textbook publishers are compelled to do. The net result of the abuse involving sample textbooks is higher prices for the books which are sold to the public, since all the expense of marketing as well as the cost of production must be secured in the revenues from sales.

In his investigation of this problem, Dr. Henry, of the University of Chicago, found that the value of "gift copies of schoolbooks sent out by publishers is estimated by one representative to form 3 to 10 per cent of the value of the books sold. Another states that for every fifteen college textbooks sold, one is given away. The number of samples sent out by one company last year is given as 192,850 copies."[1]

One publisher in reporting to Dr. Henry declared:[2] "It takes a sale of at least twenty books to pay for one free sample, and the demand on the publisher for free samples has steadily increased in recent years. This is to no small extent due to the lavish and foolish waste of sample copies on the part of representatives of some publishers, but it is also due to the increasing demand for copies on the part of educational authorities. This organization of committees within committees, followed by a demand for a separate sample for each member of each committee, results in such a demand for sample copies in the minor cities that the eventual sale hardly pays for it, especially as there is more than a suspicion that these sample copies are eventually used for study, to take the place of books that would otherwise be bought.

"Moreover, there is a strong suspicion that these sample copies are sometimes sold by thoughtless educational persons, which results in their going into the secondhand trade and materially reducing the legitimate sales. If a teacher does not want the books given him is it too much to ask him to return them to the giver?"

I have much sympathy with the point of view expressed by this publisher and believe that school administrators and teachers should recognize the unfairness of certain of the practices now followed in securing sample textbooks from the textbook companies.

It has been frequently proposed that the publishers enter into some agreement that would eliminate certain of the abuses found by Dr. Henry. This would seem unnecessary as the unfairness of some of the present practices is so patent that school people should eliminate them without the necessity of any coöperative action on the part of the publishers.

In all probability, the representatives of textbook companies are to some extent blamable because of their inclination to send samples to any person who expresses an interest in a particular book. It is my opinion that a person should not ask a publisher to furnish a sample textbook, unless there is every prospect that the copy is to be used for a purpose that will net tangible results to the publishers. It might also be advisable for publishers to mark sample copies in such a manner as to bar them from sale as secondhand copies. It might also be proper to suggest that more schools follow the practice of some superintendents, who purchase copies of all sample textbooks needed by textbook committees or curriculum committees. In the long run, the public pays the bill and it is, therefore, incumbent upon schoolmen to reduce the loss through wasteful sampling of textbooks.

[1] *The Textbook in American Education*. Yearbook, National Society for the Study of Education, Part II.

[2] *Ibid.*, p. 192.

Two Important Books on School-Administration Problems

BONDING VERSUS PAY-AS-YOU-GO IN THE FINANCING OF SCHOOL BUILDINGS

By Don L. Essex, Ph.D. Cloth, 101 pages. Published by Teachers College, Columbia University, New York City.

There is a common belief that the pay-as-you-go plan of financing school buildings is eminently sound and consistent with wise financial housekeeping and hence desirable. The fact, however, that the plan has not been inaugurated in any general way leads to the conclusion that the deferred-payment plan is still a method and an expedient which cannot be ignored. The author enters into the subject with dispassionate fairness and brings to the surface the merits and demerits of both systems.

In entering upon his task he lays down two basic principles; namely, (1) that the school-building needs of the community should be adequately provided for, and (2) that school buildings should be financed upon a basis that will be fair and just to all concerned.

Upon the question of what is fair and just, hinges the problem: If every generation is expected to pay for what it gets, then it follows, too, that one generation should not be called upon to pay for things which the next generation enjoys. Thus, a schoolhouse built and paid for now becomes the heritage of 20 or 30 years hence.

The author, however, goes to the bottom of this subject and brings to the surface all the equities involved. He frankly admits that if the pay-as-you-go plan were to be adhered to, many communities would be deprived of needed school buildings.

It is admitted that the pay-as-you-go plan is cheaper, and that the bonding plan is more expensive. The author illustrates: "Take, for example, a school building costing $500,000 financed by a 20-year bond issue at 5 per cent, all total annual payments being approximately equal. The total cost, including interest and redemption, will be approximately $800,000, with an average annual cost of about $40,000. It is plain that this total cost is $300,000 in excess of the cost of direct payments. But has there been a saving to the taxpayer by use of the bonding method?

"Consider the taxpayer whose share of the cost of direct payments will be $500. He must pay all of this in one year. On the same basis, his share of the total cost incurred by bonding will be $800; but this amount will be distributed over 30 years, and the annual charge to him will be but $40. If the pay-as-you-go plan is used, he will not have the use of his $500 after the first year. If the bonding plan is used, he can still use $460 out of the $500 the first year; $420 the second year; $380 the third year; and so on, for twelve and a half years. During the next seven and a half years he is no longer paying for the school building, but for the privilege of having his payments distributed over 20 years.

"If it is assumed that the taxpayer's money is worth 6 per cent to him, the accumulated interest on the amounts the bonding plan allows him to use total $172.20. On this basis, then, bonding costs the taxpayer $628.80 instead of $800."

Here the problem narrows itself down to the value of money in the hands of the government or in possession of the taxpayer. The latter may say, "I prefer to pay my taxes over a period of 20 years. My capital is working and earning 10 per cent. Why pay it now in a lump sum and lose the interest?"

By way of argument, here the author elucidates this phase of his subject in the following language: "Suppose that a building is constructed in a community every 20 or 30 years. If the pay-as-you-go plan is used, the taxpayers of one particular year will pay the entire cost.

"If the building had been constructed the previous year, a slightly different group would have had to pay. The difference in the personnel of the taxpayers would be still greater if the building had been constructed ten years sooner or ten years later. Taxpayers are not a static body, but a dynamic, changing group. Some die, others grow into the taxpayer's estate; some move away; others move in. There is manifestly no justice in penalizing the taxpayers who, by mere coincidence, happen to be living in the community at the particular time the building is constructed. The more stable the movement of the population, the less injustice there will be; the more mobile the population, the greater the injustice. But injustice is bound to result to some extent if the pay-as-you-go plan is used. Bonding will distribute the cost among all groups of taxpayers, whether they remain in the community one year, ten years, or any number of years."

In reaching his conclusions, Professor Essex says: "Both bonding and pay-as-you-go have much to commend them. Pay-as-you-go tends to prevent extravagance. It also eliminates the interest costs. On the other hand, bonding takes from the community the funds with which it can most easily dispense. It also distributes the burden imposed by capital costs over a period of years. In communities where buildings are constructed at relatively long intervals this is a just procedure. However, if bond issues are allowed to overlap, there is danger that future generations will be unjustly burdened.

"The bonding plan has the distinct advantage of being feasible—although not necessarily desirable—under practically all circumstances. Ordinarily, pay-as-you-go is feasible only in those communities in which building is annually recurrent or nearly so, and in these communities full consideration should be given to the trend in the true value of per capita assessments, and to bond interest rates."

THE MINUTES OF A BOARD OF EDUCATION

By George W. Grill. Cloth, 215 pages. Published by The Bruce Publishing Company, New York, Milwaukee and Chicago.

Here is a timely contribution to the literature on school administration. The part which the minutes of a board of education play in the business and contractual relations which that body enters into, has again and again been demonstrated by the courts. In the language of the author, "it is a well-established principle of law that corporate bodies speak only through their minutes."

The author, who happens to be an experienced school executive, deals in the first chapter with technique of minute writing, record books, the preparation of resolutions, secretarial responsibilities, and the like. He then discusses the order of business, opening meetings, roll call, taking a recess, executive sessions, the committee of the whole, committee reports, amending rules and adjournment.

The third chapter concerns itself with a typical set of minutes, with oral as well as written communications, reports of superintendents, treasurers, architects, plants and sites, supplies and equipment, health, athletics, etc. The succeeding chapters go into actions relating to teachers, to pupils, custodians, finance, real estate, construction labors, maintenance, supplies and textbooks and the various illustrations likely to come within the province of a modern board of education. Here it is found that the deliberations and conclusions concerning the taxation questions, issuance of bonds, site selection, and building-construction labors, become most important.

The author in recognition of this fact is quite explicit in discussing the several actions touching upon financial matters, the details of the various transactions. In the matter of bond issues it becomes exceedingly important that the records be complete and accurate, and in keeping with the requirements of the law. More than that, it becomes equally important that the election announcements, form of ballot, and the like comply with the legal requirements.

The various actions which must be followed are not only outlined step by step but forms and blanks, announcements and notices are supplied. In fact, the book covers quite completely the several stages which

(Continued on Page 65)

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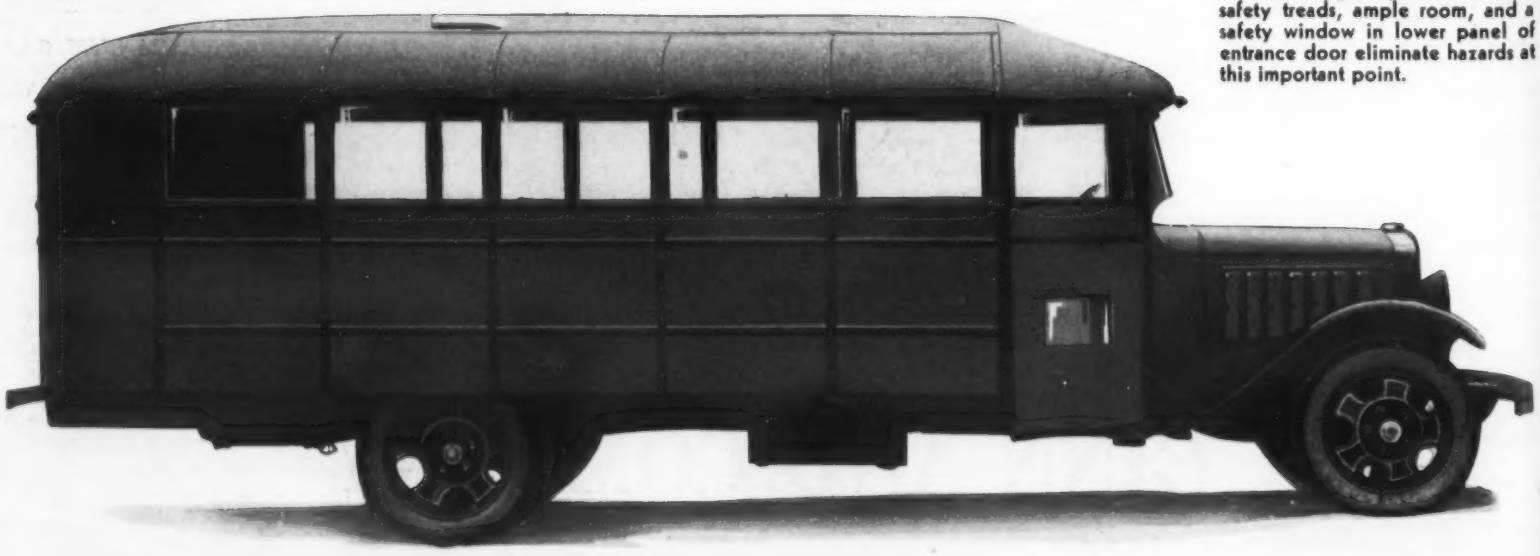

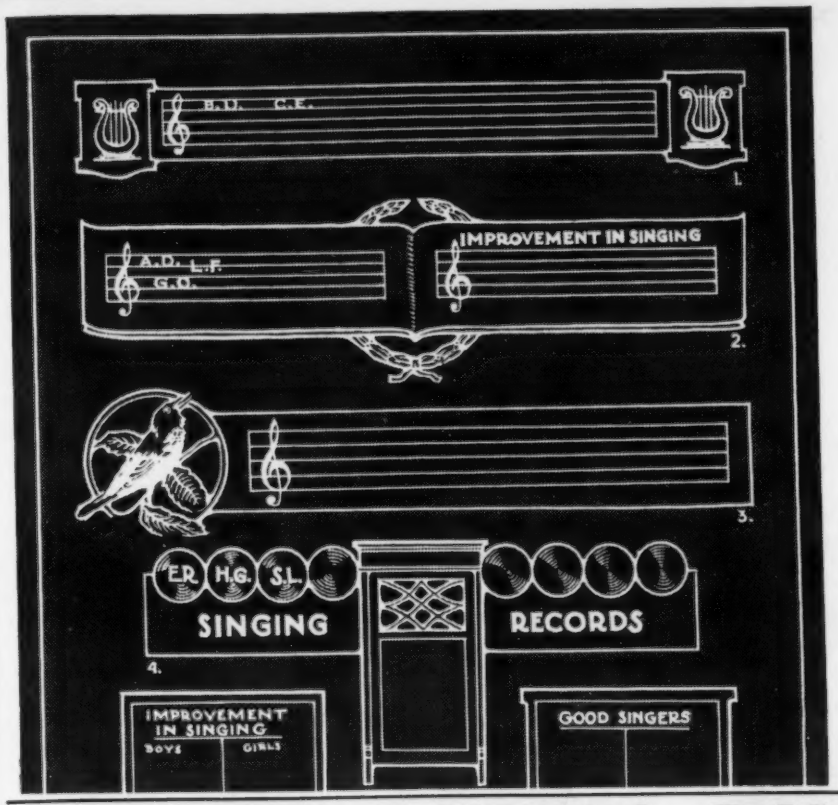

Promoting New Interest in Music through Blackboard Drawings

If singing is difficult for some pupils, a way should be found to stimulate their interest in the work. Music, the art which appeals to the ear, can be presented in appealing visual form. For example, Figure 1 presents an honor roll successfully used in raising the singing standards of a class. Initials of pupils showing progress are lettered with colored chalk on white lines.

Again in Figure 2 the honor roll is employed, this time with a wreath motif as the symbol of honor. A singing bird appropriately drawn in colored chalk may be used to introduce an exercise in music, as in Figure 3. In rooms where music appreciation is taught by means of phonograph or radio Figure 4 would be of service. The names of pupils naming all the pieces at one session would be included.

Figures 5 and 6 are employed where the competition method is used. Figure 7 shows how to present a singing lesson in an attractive way.

Resourceful teachers will find many adaptable ideas in this chart for their individual class uses—employing Anduseptic Dustless Crayons and Binney & Smith Colored Chalk Crayons in these presentations.

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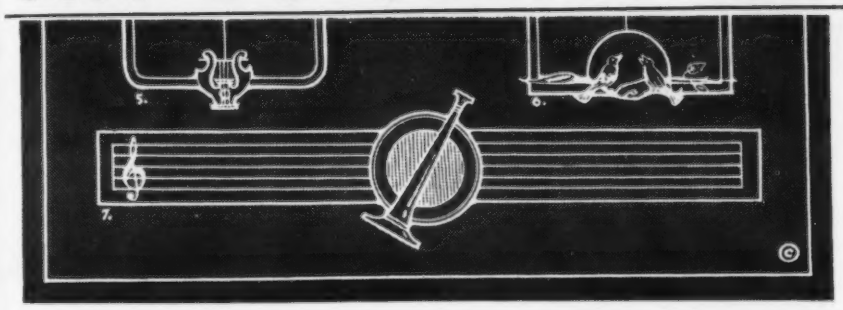

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(Continued from Page 62)

must be observed in their regular sequence in order to make the transactions legalproof and safe. Sample forms of reports and documents likely to be required in any official transaction engaged in by the board of education or its executive officers are amply supplied.

The book may well find a place on every school executive's desk as a safe and dependable guide in the keeping of financial and legislative records of a school system. —W. G. B.

The Psychology of Exceptional Children

By Norma V. Scheidemann. Cloth, 520 pages, illustrated. Price, $3.25. Houghton Mifflin Company, Boston, Mass.

This book presents a most comprehensive study of the exceptional child. It makes available a vast collection of data on the various types of exceptional children, on the methods of dealing with them and on remedial measures to be taken with them. The material presented in the book is based upon scientific studies and research made by specialists in the field of child psychology. Among the topics treated in this volume are the nature of individual differences; the measurement of intelligence; the various types of exceptional children; the deaf, the blind, the crippled, the mentally subnormal, the speech defectives, as well as the psychoneurotic, the psychopathic, and the gifted. In addition some very valuable material on word-blindness and reading disabilities is presented.

Each chapter includes the tests found to be the most valuable in the special fields and presents some interesting case histories with questions about their solution in the light of the materials presented in the book. In addition, there are very adequate footnotes, as well as statistical tables, graphs, and illustrations. At the close of each chapter is included a selected list of the best available additional material.

As a textbook in both undergraduate and graduate classes, Dr. Scheidemann's book should prove of great value. However, the books will perhaps be more especially useful to the teacher in the classroom. As every teacher is aware, there are great numbers of children in our schools today who are achieving only a slight portion of their possibilities. For this situation many and various reasons may be advanced. The chief reason is that in the past teachers have been unable to do much for these children because their professional training had not included work which would prepare them to recognize either special defects or special capacities. This situation may now be remedied, for Dr. Scheidemann presents in her book such a survey of the field and of its literature that teachers who read this book will be able to recognize the exceptional child in the classroom; to understand the mental and physical characteristics of these children; and to know what remedial measures may be taken to help the child to develop to the best of his capacities. This book is a real contribution to the field of child psychology.

Gregg Typing

By R. P. Sorelle and H. H. Smith. Cloth, 267 pages. The Gregg Publishing Company, New York.

This book is an entirely new work in which the basic principles presented by the authors in their "Rational Typewriting" are applied in a new and fresh form. The book assumes from the very beginning that typing is an essential subject which must be taught by carefully established technique and correct habits. The authors have brought to their service slow-motion pictures of expert typists in action and have analyzed with the greatest possible care the strokes of the most successful experts in action. At the very outset of the course, the student is taught to use the entire keyboard of the machine and to correctly operate the other parts of the same.

The first seven chapters of the book are so arranged that every essential operation is performed correctly and habitually and from this point on to the end of the book, practice is given in all common typing activities to prepare the student for any ordinary typing which he or she will be called upon to do in the average business house or office. Every usual form of business instrument is included in the examples which are provided.

The book provides a tie-up with the student's study of shorthand, in that the vocabulary is that of the Gregg shorthand manual. At numerous points the authors have introduced interesting and useful devices for adding to the adaptability of the book, and for overcoming common difficulties which have been met in practical classroom work.

A Severance Tax for Ohio

By A. E. Moody, M.A., Ph.D. Cloth, 127 pages. Published by the author, Bedford, Ohio.

Since the author is an educator, this book assumes special interest from the standpoint of the cause of the schools. He is the superintendent of schools at Bedford. He demonstrates that one concerned in an adequate revenue for public education may well delve into the mysteries of taxation as the initial step toward attaining desired results in school finance.

The author treats the subject of taxation in its broader aspects and then reduces his discussion to the severance tax. He makes clear at the outset that the property tax is a defective instrument and wholly inadequate in exacting a just tribute. He notes the more glaring defects and proposes corrections and reënforcements.

In dealing with the severance tax the book cites the laws on the subject which now obtain in Arkansas, Kentucky, Louisiana, Minnesota, Montana, Oklahoma, Oregon, Pennsylvania, Texas, and West Virginia. It defines the severance tax as "a tax levied upon natural products severed from the soil, except agriculture." It naturally follows that a severance tax can only serve in sections of the country where the natural resources are sufficient to warrant the innovation. Superintendent Moody here presents some interesting facts regarding Ohio's annual output of coal, fire clay, natural gas, gypsum, limestone, oil, salt, sand, gravel, and sandstone. These minerals were valued in the year 1928, which was far from a peak year, at $109,287,701.

He suggests a tax to be applied to these several products, at a rate which ranges from 1 to 10 per cent of their market value, and demonstrates that an annual revenue of approximately six and one-half million dollars could be derived. The author has brought to his service the legal and economic aspects of the problem, and at the same time has formulated an argument in behalf of the severance tax, founded on facts and figures, which is at once comprehensive and conclusive.

Modern School Achievement Tests

By A. I. Gates and others. Form I, with manual and key. Published by Teachers College, Columbia University, New York, N. Y.

This battery of tests includes two reading tests, two arithmetic tests, spelling, health, language, history, and civics, geography, and elementary-science tests. The tests have been developed in 37 cities, in which they were given to nearly 7,000 children. Their reliability has been found high and from a practical standpoint, the tests have indicated that they are convenient to use and easy to score. They represent the application of much common sense in the direction of simplification and of economy in time and effort on the part of teachers and pupils.

A Child's Third Number Book

Part II. By Saul Badanes. Cloth, 153 pages. The Macmillan Company, New York.

This arithmetic for the second half of the third year

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reviews division and multiplication and introduced children to the underlying idea of fractions.

Elson Basic Readers

Book Four. By William H. Elson and W. S. Gray. Cloth, 384 pages. Price, 80 cents. Scott, Foresman Company, Chicago, Ill.

Recent child literature has been drawn on heavily for the content of this fourth reader. Child interests in nature, in home activities and play, and especially in romantic historic characters are emphasized. Citizenship, child life in foreign lands, work activities, and holidays are general topics for important sections of the book. More important than all these fine features of the work, however, are the careful grouping of each selection for content, sentence structure, vocabulary, etc. The study helps are all in the direction of improving silent reading, increasing vocabularies, and strengthening reading essentials and abilities.

The book is illustrated in one color and includes a vocabulary of words which are unusual or difficult to pronounce.

Arithmetic for Today

By Robert F. Anderson and George N. Cade. Book one, 319 pages. Book two, 320 pages. Book 3, 352 pages. Price, 72 cents each. Published by Silver, Burdett & Company, New York.

These three books provide a complete treatment of arithmetic, beginning with the third grade and including the second year of the junior high school. The approach throughout the books is that of skill in handling numbers for the solution of problems which are met in ordinary life.

The first book reviews the basic number operations which children have learned in the first two grades, and carries them along to addition and subtraction of fractions. Book two, which is intended for the fifth and sixth grades, lays a basis for rapid practice in the use of whole numbers, and carries along the work in fractions and decimals from the application of previously learned principles, to the measurement of areas, and the application of figures to simple business problems. Book 3 is essentially a junior-high-school text, with strong emphasis on business problems, and a clear-cut introduction to the arithmetical principles applied to present-day business, ratio, and proportion. The work leads up logically to the beginnings of algebra and geometry.

The authors have carefully brought to bear not only their own experience as teachers and supervisors, but have made full use of all the recent scientific investigations concerning operations and teaching methods in arithmetic. Careful grading is quite as much a feature of the books as application of topics and problems to real life situations. The exercises and reviews are of the diagnostic type with ample material for drill where it is needed.

The books reflect in every department present-day school practice quite as much as present-day economic and social conditions.

Adventures in Fact and Fancy

By Frances L. Taylor. Cloth, 304 pages. Price, 84 cents. Beckly-Cardy Co., Chicago, Ill.

The third reader of the "Adventures in Storyland" basic readers. Silent reading is emphasized more strongly in this book than in the previous readers, because it is intended that this book shall complete the pupils' mastery of the mechanics of reading and shall form an introduction to the establishing of habits of reading for information and enjoyment. The vocabulary includes nearly seven hundred new words.

In the Days of Young Washington

By Nancy B. Turner. Cloth, 248 pages. Price, 92 cents. Houghton Mifflin Company, Boston, Mass.

The story of two interesting children who came into contact with Washington. It reflects in a very accurate way the lives, customs, and dangers of colonial life in Washington's boyhood.

Peter and Nancy in Europe

By Mildred H. Comfort. Cloth, 208 pages. Price, 75 cents. Beckly-Cardy Co., Chicago, Ill.

This book is a new type of geography reader, one in which two American children visit each of the principal countries of Europe and enjoy the interesting historic and important industrial and cultural centers. Airplane transportation is made use of to carry children to distant countries not ordinarily accessible in a single trip to the traveler.

The book is written in an optimistic, commendatory spirit, that seems to take for granted that what is, is good. Thus, the chapter on Russia apparently praises conditions and theories which are quite antagonistic to American institutions and which are certainly not constructive for citizenship.

The Guide, 1932

Engineering Guide of the American Heating and Ventilating Society. Volume 10, 954 pages. Price, $5. Published by the Society at 51 Madison Avenue, New York City.

This book is a résumé in usable form of the main principles and technical data used in American heating and ventilating engineering practice. It reflects the best thought and the latest findings which the American engineers have been able to gather by coöperative work. It presents also the latest devices, materials, and specialties which are available to the heating and ventilating engineer and contractor. School architects and engineers will find in the book the latest technical data on the design and installation of central fan and air-distribution systems, unit heaters and ventilators, etc., as applied to schools.

PUBLICATIONS RECEIVED

Score Card for Junior-High-School Buildings. By George D. Strayer and N. L. Engelhardt. Six pages. Published by the Bureau of Publications, Teachers College, Columbia University, New York City. This is an adaptation of the authors' earlier score card for high-school buildings as applied to junior high schools.

The Airplane and Its Engine. Charles H. Chatfield and Charles F. Taylor. Cloth, 425 pages. Price $3. The McGraw-Hill Book Company, New York. This is a revised edition of an earlier book on the subject, devoted to the basic principles and present development of the airplane and its power plant. The authors, in this edition, have clarified the text, made additions and changes in the material, and introduced many descriptions and illustrations of the latest types of airplanes and engines which have proved of genuine value. The book begins with a description of the essential parts of the airplane, and follows with a study of the engine, the propellor, the controls, the power plant, and the airplane structure, together with a description of aircraft instruments and accessories.

The Influence of Theme-Reading and Theme-Correction on Eliminating Technical Errors in the Writing of Compositions. By John E. Fellows. Paper, 56 pages. Bulletin No. 1, March 1, 1932, issued by the University of Iowa, Iowa City. This pamphlet consists of a discussion of the problem and the experimental procedure in connection with the correction of pupils' themes. In the study, the author has attempted to formulate a résumé of the findings of former studies, especially those having to do with the errors that ninth-grade pupils make in their writing. The data showed that theme-correction operated most effectively in securing an improvement in technical language ability as measured by error counts and the dictation test among the bright pupils and very indifferently among the dull pupils. It was concluded that, if theme-correction is employed, teachers may apply the technique with greater confidence to the themes of the bright pupils than to those of the dull.

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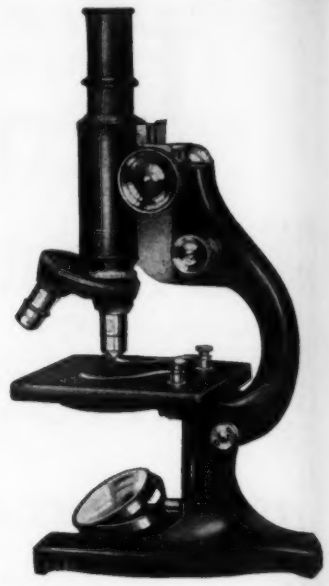

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School Law

School-District Government

A recall agreement between two school directors that the renewal of a superintendent's contract was contingent upon the election of a third director's opponent, in pursuance of which the superintendent was not reëmployed, was held insufficient (rem. complete statutes, § 5350 et. seq.).—*State* v. *Houghton,* 4 Pacific reporter (2d), 1110 Wash.

School-District Property

A public dance was held "public entertainment" within a statute authorizing the county high-school trustees to rent a school gymnasium therefor (Mont. revised codes of 1921, § 1271, as amended by the Mont. laws of 1929, c. 48).—*Young* v. *Board of Trustees of Broadwater County High School,* 4 Pacific reporter (2d) 725, Mont.

The right of county high-school trustees to rent a school gymnasium for public entertainments is entirely statutory (Mont. revised codes of 1921, § 1271, as amended by the laws of 1929, c. 48).—*Young* v. *Board of Trustees of Broadwater County High School,* 4 Pacific reporter (2d) 725, Mont.

The legislature's authorizing county high-school trustees to rent a school gymnasium for public entertainments was held within the constitutional power to provide for the maintenance of the schools by taxation or otherwise (Mont. revised codes of 1921, §§ 1262-1301; Mont. constitution, art. 11, § 6).—*Young* v. *Board of Trustees of Broadwater County High School,* 4 Pacific reporter (2d), 725, Mont.

The renting of a high-school gymnasium for public dances was held not contrary to "public policy" (Mont. revised codes of 1921, § 11039, and § 1271, as amended by the laws of 1929, c. 48; Mont. laws of 1927, c. 49); (Mont. laws of 1929, c. 131; and constitution, art. 11, § 6).—*Young* v. *Board of Trustees of Broadwater County High School,* 4 Pacific reporter (2d) 725, Mont.

Pupils and Conduct of Schools

Sureties on a bus driver's bond to a school board are not liable for the death of a pupil while a passenger.—*Benton* v. *Board of Education of Cumberland County,* 161 Southeastern reporter, 96, N. C.

A bus driver and his surety were held improperly joined in an action for a pupil's death through the bus driver's negligence.—*Benton* v. *Board of Education of Cumberland County,* 161 Southeastern reporter, 96, N. C.

School Building News

SAFE AND SANITARY SCHOOLHOUSES

The state educational department of Kentucky maintains a bureau on building and grounds in charge of Dr. J. W. Brooker. The function of the bureau is:

1. To assist local boards of education to make studies to determine school-building programs consistent with their needs and resources.

2. To advise school officials in the selection of school sites and orientation of school buildings.

3. To furnish complete working plans and specifications for school buildings from one to four teachers in size, where the services of a registered architect are not available.

4. To furnish unit layouts of special rooms, such as libraries, study halls, science laboratories and recitation rooms, home-economics laboratories, etc.

5. To furnish suggested floor plans for larger buildings.

6. To examine and approve or disapprove architects' plans and specifications for school buildings in accordance with section 4388, Kentucky Statutes.

7. To advise with school officials concerning remodeling or adding to existing school buildings.

8. To assist school officials develop plans for such special buildings as farm shops, gymnasiums, home-economics cottages, teachers' homes, etc.

9. To furnish information and render assistance in school housekeeping problems.

PARMA ADOPTS NEW RENTAL RATES FOR SCHOOLS

The school board of Parma, near Cleveland, Ohio, has adopted new rental rates for the use of the school buildings. The charges cover the cost of the custodian, light, heat, wear and tear on the building, and the cost of the kitchen when used. The rates are as follows:

	Auditorium	*Auditorium and Kitchen*
Pearl Road School	$ 7	$10
State Road School	7	10
Ridge Road School	7	10
John Muir School	7	10
Thoreau Park School	10	13
Schaaf Junior High	12	15

The board gave the Boy Scouts, the parent-teacher associations, and patriotic organizations free use of the buildings.

BUILDING NEWS

♦ Cincinnati, Ohio. In the naming of new schools, Supt. Edward D. Roberts has contended that it is desirable to use names of persons long and widely known in schoolwork. The suggestion was made by Mr. Roberts after Mr. Robert E. Laidlaw had proposed to the board that the Bond Hill school be named after a man who had been long retired and who was not generally known in the community at the present time.

♦ Springfield, Tenn. In order to help in meeting the financial needs of the city's unemployed and to improve and beautify the high-school campus, the athletic fields, and playgrounds, the city commission recently inaugurated a program giving employment to from 75 to 100 men daily. It is expected that the program will be continued for a few weeks longer.

♦ Morristown, Tenn. A colored elementary school has been recently completed, at a cost of $30,000. The Rosenwald Fund supplied $6,000 of the total cost of the school.

♦ Eau Claire, Wis. A petition containing 1,410 names has been presented to the city council, requesting approval for the floating of a $325,000 school-bond issue for a junior high school building. The proposal is to be voted upon at the regular April election.

♦ Norfolk, Nebr. On January 26, the voters carried a bond issue of $130,000 for a proposed school-building program. The program calls for the erection of two 8-room units and one 4-room unit.

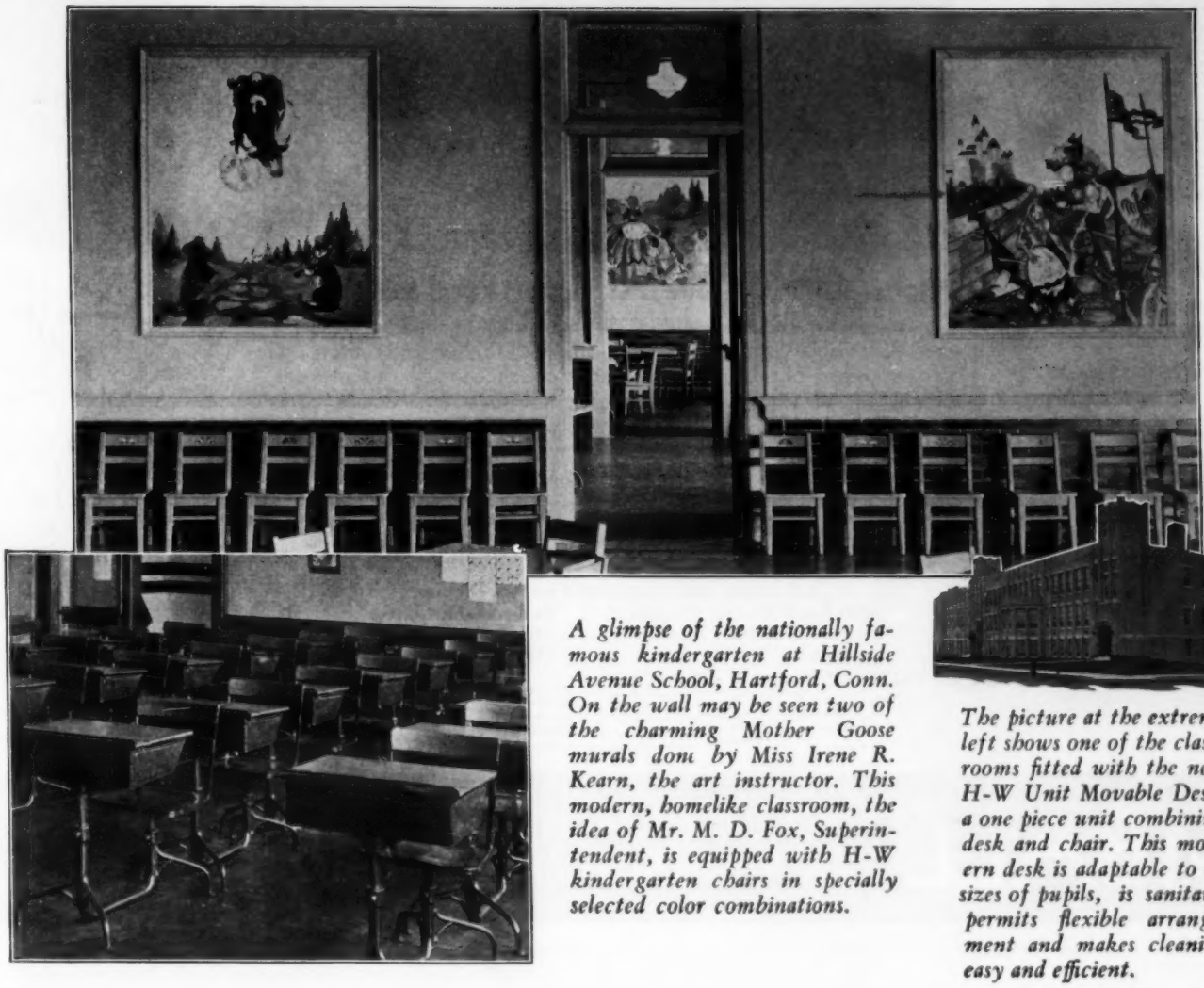
♦ Charleston, S. C. A new school unit, comprising a large study hall and a library has been added to the high-school structure. The building was completed at a cost of $28,000.

♦ Morristown, Tenn. The school budget has not been reduced this year, despite the practice in other cities of the state.

♦ Milwaukee, Wis. The school board recently approved a recommendation, providing for the appointment of Mr. B. J. Jelinek as chief of the board's

(Concluded on Page 70)

Modern Seating for a Modern School



A glimpse of the nationally famous kindergarten at Hillside Avenue School, Hartford, Conn. On the wall may be seen two of the charming Mother Goose murals done by Miss Irene R. Kearn, the art instructor. This modern, homelike classroom, the idea of Mr. M. D. Fox, Superintendent, is equipped with H-W kindergarten chairs in specially selected color combinations.

The picture at the extreme left shows one of the classrooms fitted with the new H-W Unit Movable Desk, a one piece unit combining desk and chair. This modern desk is adaptable to all sizes of pupils, is sanitary, permits flexible arrangement and makes cleaning easy and efficient.

IN equipping the new Hillside Avenue School at Hartford, Connecticut, Superintendent M. D. Fox gave particular consideration to the selection of seating. The modern classrooms, the handsome auditorium, and the charming kindergarten required something distinctive, beautiful, and practical in every respect.

That H-W unit movable desks, auditorium seats, gymnasium chairs, and kindergarten chairs were selected is indeed a tribute to their design, appearance, and construction. The kindergarten chairs were finished in specially selected color combinations to harmonize with the charming Mother Goose murals done by Miss Irene R. Kearn, the art instructor of the district. For every special or regular school seating need, there is an H-W desk, chair, or seat which will serve your purpose, practically, economically, and efficiently. Before equipping a single room or an entire building, ask your nearest H-W sales office to furnish details on this modern line of school furniture.

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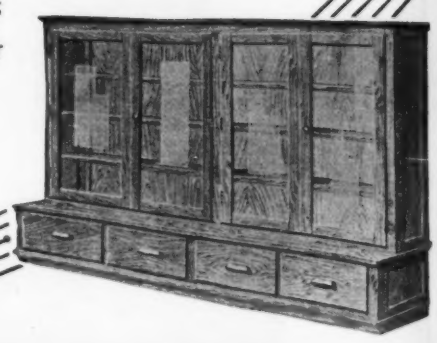

KIMBALL BUILT LABORATORY AND VOCATIONAL FURNITURE CHICAGO

(Concluded from Page 68)

bureau of buildings and grounds. The appointment carries a salary of $5,500 a year, with a six months' trial period in accordance with civil service requirements.

♦ Longview, Tex. The school board has awarded the contract for the erection of the new high school. The architect of the building is Mr. Mark Lemmon, Dallas, Tex.

♦ San Antonio, Tex. The school board has just completed the erection of the Thomas Jefferson High School, at a cost of approximately $1,250,000.

♦ Tulsa, Okla. The business department of the public schools is conducting, this year, an evening school for custodians, with the idea of improving the general efficiency of the custodian personnel of the schools and of determining the best methods of meeting these responsibilities.

The board of education regularly employs approximately 100 full-time and part-time custodians, the period of service varying from 6 months to 25 years.

The program of the school provides for instruction in heating and ventilation, plumbing and steam fitting, lubricants, cleaning and dusting of classrooms, and relations of custodians to pupils, teachers, and principals.

♦ Albany, N. Y. School-construction projects for which approval of the state education department is required, are receiving more careful attention under a new economy program. With $20,000,000 represented in projects now under way or ready to be started in rural districts, villages, or small cities of the state, an almost equal expenditure is represented in plans awaiting the department's approval.

Dr. Frank P. Graves, state commissioner of education, stated that the policy of strict economy has entailed no change in the procedure, but that more careful attention is being given in the interest of economy. There has been no intention to delay school construction and school projects are passed upon as rapidly as the facilities permit.

♦ The board of education of Portland, Ore., has found itself confronted with a deficit of some $400,000 on its 1932 budget, which in round numbers called for approximately $6,000,000. The deficit is entirely due to a decline in the property valuations which caused a reduction in the tax yield.

The board has decided to maintain the salary schedule for the year 1932, with the exception of a 10-per-cent reduction to become operative for the last four months of this year. This will absorb the deficit. The final fixing of the school budget is subject to the authority of the tax conservation commission.

♦ Grand Rapids, Mich. The school board has adopted a budget of $2,372,389 for the school year 1932, which represents a saving of $35,000 from that of a year ago. The saving was effected by radical cuts in furniture replacement and repair, evening-school advertising, and other items.

♦ Quincy, Mass. The school board has adopted a budget of $1,233,689 for the school year 1932-33, which is a reduction of $8,671 below that of 1931. The amount was in addition to the normal increase in operating expenses averaging $80,000 during the past few years. Of the 21 items covered, 15 were reduced, 2 were increased, 3 were eliminated, and 3 remained the same.

♦ Oshkosh, Wis. A price of 80 cents an hour for carpenters for repairwork and odd jobs about the schools was criticized as too high recently by Mr. Arthur Bradley, a member, in a discussion of the subject by the board members. Mr. Bradley said the wage for carpenter work was too high in view of the number of competent men out of work who would be glad to get the work at a lower rate.

♦ Van Wert, Ohio. Insurance on the buildings and contents of the local schools has been awarded by the school board to five local agencies. A total of $414,900 worth of insurance was divided equally among five agencies.

♦ Norfolk, Nebr. The taxpayers recently approved a school-bond issue of $130,000, the proceeds of which will be used for the erection of three grade schools. One of the three buildings will replace a condemned structure.

PERSONAL NEWS

♦ Supt. G. N. Child, of Salt Lake City, Utah, has been reëlected for a two-year term, beginning with July 1.

♦ Supt. D. S. Williams, of Bozeman, Mont., has been reëlected for a term of three years.

♦ Mr. H. H. Linn, assistant superintendent of schools at Grand Rapids, Mich., has refused a scheduled increase in salary for the next year. A proposed new contract called for an increase in salary to be spread over three years.

♦ Supt. H. R. Hick, of Cambridge, Ohio, has been reëlected for a term of five years, at the present salary of $5,000 a year.

♦ Mr. Frank D. Hendry, superintendent of schools at Royal Oak, Mich., has announced his resignation, to take effect at the close of the present school year.

♦ Supt. Wm. H. Taylor, of Okemos, Mich., has been reëlected for a new three-year term, at a salary of $3,000 a year.

♦ Supt. W. F. Kruschke, of Rhinelander, Wis., has been reëlected for a new term of three years, at the same salary.

♦ Mr. F. E. Converse, superintendent of schools at Beloit, Wis., for 35 years, has announced his resignation, to be effective at the end of the school year.

♦ Supt. Paul C. Stetson, of Indianapolis, has received the degree of doctor of laws, conferred on him by Butler University.

♦ Supt. D. W. Horton, of Muncie, Ind., has been elected vice-president of the Indiana Superintendents' Research Club. Mr. E. J. Llewelyn, of Newcastle, was elected secretary-treasurer.

♦ Mr. Conrad Jacobson, of York, Nebr., has been elected superintendent of schools at Holdredge. Mr. Jacobson is a graduate of the University of Nebraska and Chicago University and holds two degrees given by the former.

♦ Mr. John B. Montgomery, superintendent of the state school at Coldwater, Mich., from 1897 to 1923, died on January 24, at his winter home in Florida.

♦ Supt. G. H. Sanberg, of Rochester, Minn., has been reëlected for another year.

♦ Mr. P. W. Holaday, a member of the staff of the bureau of research of Ohio University, has been appointed director of research for the city schools of Indianapolis, Ind. Mr. Holaday succeeds Murray Dalman, who resigned more than three years ago.

♦ The Toledo board of education has elected David Goodwillie as its president. Mrs. Ruby Crampton is the new member.

♦ William Arthur Reilly was elected president of the Boston School Committee (school board).

♦ Mr. Charles Bowers, superintendent of schools of Holdrege, Nebr., has been elected executive secretary of the State Teachers' Association, to succeed Mr. E. M. Hosman. Mr. Hosman has resigned to become director of publicity for the Omaha University.

♦ Supt. C. C. Baker of School District No. 1, Itasca county, Minnesota, centering in Grand Rapids, Minn., has announced that the schools in the 66 townships have not reduced salaries of teachers, as stated in a news report.

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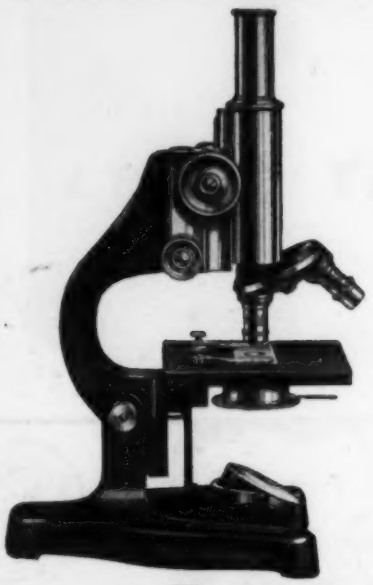

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School Administration Notes

CLEVELAND'S DEFECTIVE SCHOOL ORGANIZATION

Under this heading the plan of school administration of Cleveland, Ohio, is discussed in a recent bulletin by the Citizens' League of that city. It sets forth the following facts: "The total enrollment in the 155 schools of Cleveland is approximately 148,000. The employees of all kinds, including supervisors, principals, teachers, custodians, and laborers, exceed 7,000 in number. The total investment in school properties is in excess of $50,000,000. Expenditures have increased from $2,493,315.20 in 1904 to upwards of $22,000,000 in 1931."

The criticism, which is advanced in a friendly spirit, is centered upon the dual plan of organization as against a single-headed executive management of the school system. It is brought out in the discussion that Cleveland's school system has been subjected to surveys in 1915, 1923, 1930 which in each instance recommended the dual system be abolished. The survey for 1915 supported the unit system of control in the following language:

"*a*) It is recommended that the board of education be organized on a *unit* basis under the leadership of the superintendent of schools instead of being divided into two independent executive departments under two independent executives of equal rank. Under the proposed form of organization the business director would have the rank and status of assistant superintendent in charge of business affairs.

"*b*) It is recommended that under the proposed reorganization there would be worked out a systematic plan for the definite placing of authority and responsibility. The purpose is to bring about a condition under which every person in the system will know just what he or she is responsible for doing."

Speaking of the defective plan of organization in its relation to the planning and construction of school building, the 1922 report says: "The dual system prevents the development of unified executive leadership and makes extremely difficult the locating of responsibility for determination of policies. A study of a considerable number of major building operations reveals the presence of various clashes in judgment between the two major departments during the course of planning and constructing of buildings . . . clearly the present form of dual organization is not designed to promote this very desirable end, because no single executive officer is in position to enforce the determination of policies at the proper time."

In the report just issued, the Citizens' League submits the following: "Perhaps the most serious fault with the multiple plan of control as it works in Cleveland is that it hinders and prevents the board of education itself from functioning in its proper capacity. Instead of acting as the originator and determiner of policies and leaving to the superintendent of schools the administrative details of carrying these policies into effect, the board in Cleveland has found itself obliged to act as the harmonizing agency between three separate units of an educational system. This means that the board is compelled to occupy its time not with broad questions of policy, but with petty adjustments between departments. No one can attend a meeting of the Cleveland board of education without being impressed with the fact that the questions of policy are rarely, if ever, discussed, and that the time of the board is necessarily consumed with reconciling differences between the departments and settling questions of administrative detail. Some of these details must, of course, under state law be acted upon by the board; but there are pages of itemizations which would never require board action under an effective unitary plan of administration.

"We believe that a single responsible and trained executive over the entire administration of the schools under an elective board of education whose functions are legislative in character is quite as necessary to efficient school management as it is to the successful administration of large financial and industrial corporations. The most fundamental need of the Cleveland schools, as we see it, is first to approve an administrative plan which will make complete centralization possible, and then find some able, vigorous and farsighted educational statesman who can coördinate the system in the interests of the school children of Cleveland."

MOTION PICTURES IN ELEMENTARY SCHOOLS

With the development of the motion picture for entertainment there has come a growing interest in motion pictures as aids to classroom instruction. Many of the newer school buildings have made provision for the use of motion pictures.

The Office of Education of the U. S. Department of the Interior has recently published a report presenting data collected from information on the administration of film service in the public schools of the country. The material was arranged by Mr. J. O. Malott, specialist in commercial education, and has been made available to teachers and school administrators in elementary and secondary schools.

The report shows that, of 301 communities reporting on the administration of the visual program, 111, or 37 per cent, indicated that they had visual departments. One hundred eight, or 36 per cent, reported that motion pictures were obtained by individual teachers in connection with their instructional projects. It was apparent that 45 per cent of the 517 communities have machinery for administering the visual-education program.

Nine different sources of funds for motion pictures were reported by 439 school systems. A total of 213 reported that they were financed by the board of education. Revenues from entertainment and school funds were used by 17 per cent of the schools reporting; contributions were reported by 6 per cent; extracurricular activities by 4 per cent; and 3 per cent by parent-teacher associations.

Schools do not ordinarily buy films, nor do they pay high rentals, according to the report. Ninety-eight per cent of the schools stated that they did

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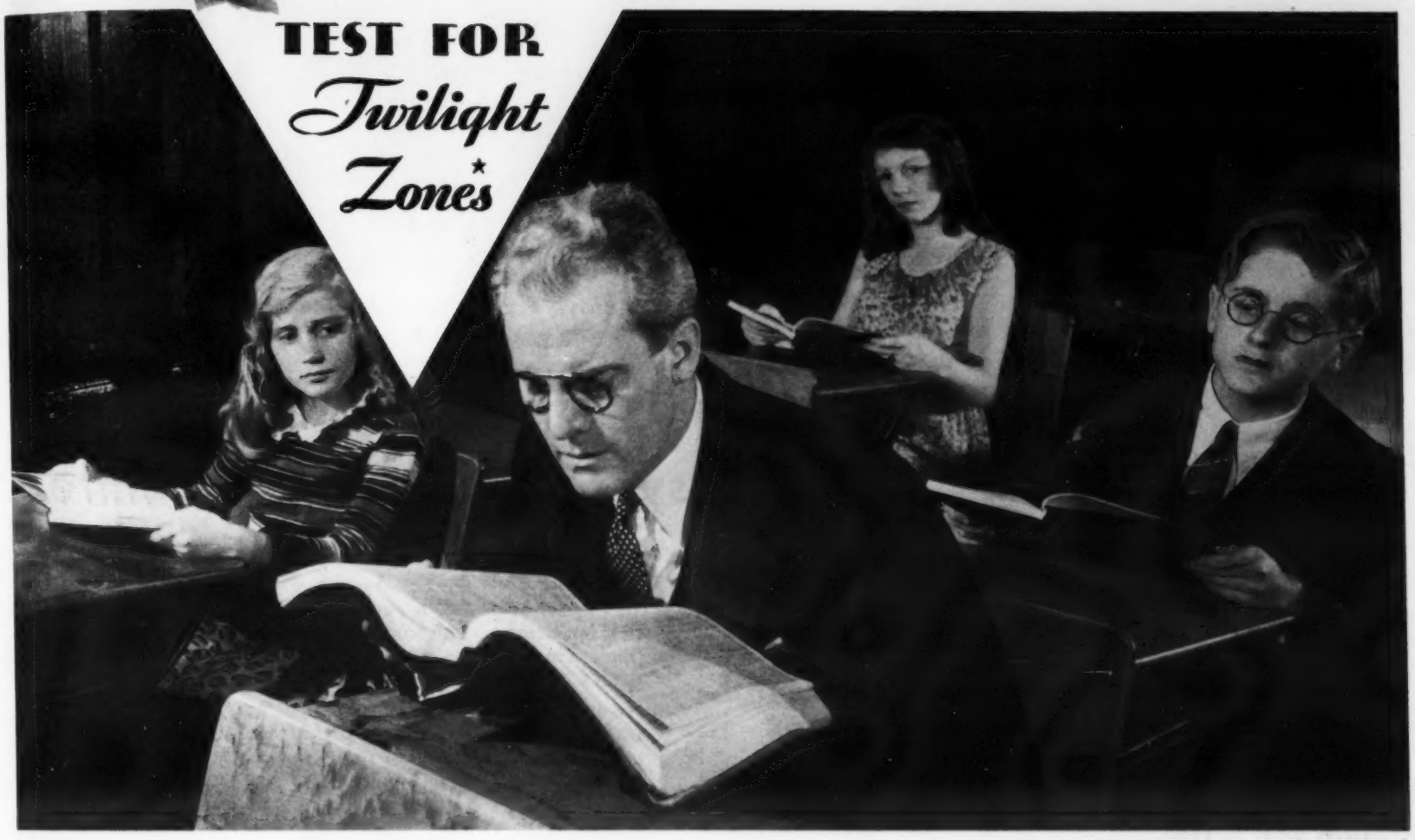
IF BRIGHT-LOOKING CHILDREN SEEM "BACKWARD"



THERE are many different causes which account for the backwardness of school children. Some of these are easily remedied, others are not; but as Dr. C. W. Stiles, Medical Director of the U. S. Public Health Service, says in Science Magazine: "Whatever the cause in any given case or school or district, every case of retardation is an economic loss to the tax-payers, and the person at fault who does not co-operate with the child in trying to discover and to remove the underlying cause is not only doing the child a grave injustice but is not playing fairly the game of citizenship and self-government with the tax-payers."

If you want to reduce the number of "backward" children — particularly those who look as if they ought not to be stupid—look to your lighting.

Make this simple test

Take a phone book and go to the seat of some bright-looking child who seems "*backward*" or "*a trouble-maker.*" Now, sit down and open the phone book at random and note what happens. Does every word stand out clear, sharp? Can you read any phone number, name and address as easily and quickly as you can this page? If you can't—if you have to squint, slow up or draw the book closer to your face—this child is not getting enough light to do his best work. The *Twilight Zone** in which he is forced to sit is endangering his eyes, choking his interest in his studies, and twisting his unhappy thoughts into a hundred ways of "deviling" the other children.

This simple test which we recommend you make yourself is not an absolutely accurate one (only a lighting engineer can make such a test) but it is quick and accurate enough to give you some idea of the lighting conditions in your school.

So, make the phone book test today. Rid yourself of *Twilight Zones.** Place illumination in your school on a scientific basis.

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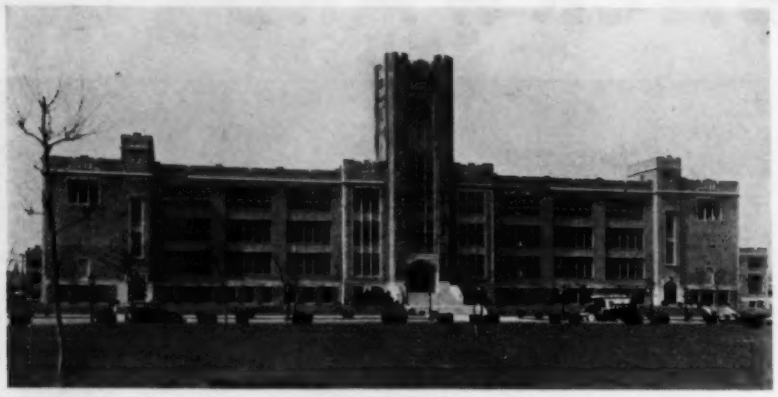

Atlantic City High School, Atlantic City, New Jersey. Architect, Howard A. Stout, R. A., Atlantic City, N. J. All outside sash finished with Cabot's Green Gloss Collopakes

WHEN sash and other outside work is finished with these bright unfading colors, they hold their gloss and color outdoors through extremes of weather conditions and over long periods of time. A fine modern school building deserves a fine finish and finishing materials that will keep looking fresh and new. Cabot's Gloss Collopakes are scientifically compounded by Cabot's patented Collopaking process. Owing to their exclusive patented method of manufacture, they have great covering power, and are thus low in cost.

Whether you are re-painting your present school buildings or finishing a new one, it will be worth your while to investigate Cabot's Gloss Collopakes.

Send coupon below for color card and "The Architect's Green Book" giving the opinions of more than sixty-six architects on Cabot's Green Gloss Collopakes. There is no obligation.

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Made by the makers of Cabot's Creosote Shingle and Wood Stains

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Gentlemen: Please send me color card and "The Architect's Green Book" describing Cabot's Gloss Collopakes.

Name .....

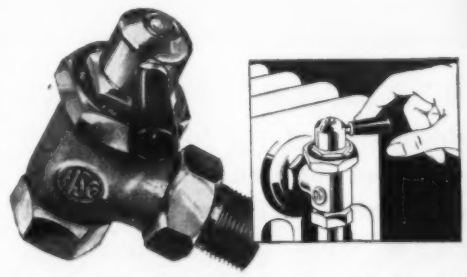
Address ASBJ-3-32

. . . Don't let an "UNBALANCED" heating system endanger comfort and health! . . .

In the schoolroom, especially, *uniform temperature* is of first importance. For uneven temperature, due to imperfect "balancing" of the heating system, is a menace to children's health.

An unbalanced system, briefly, is one in which all radiators do not receive the correct proportion of steam. Hence, one room may be overheated, while others are too cold for comfort.

HOFFMAN CONTROLLED HEAT ASSURES UNIFORM TEMPERATURE IN EVERY ROOM



Many schools have found the answer to this problem in Hoffman Controlled Heat. This strictly modern heating system employs a Modulating Valve at each radiator, which by an *externally adjustable* metering orifice provides for correct distribution of steam. This patented device eliminates all guesswork on the part of the installing contractor. It ends "trial and error" methods which so often result in an unsatisfactory heating installation.

Another feature, important to the man responsible for maintenance costs, is the remarkable economy of Hoffman Controlled Heat. It is a vapor-vacuum system, operating on low steam pressure, with resulting fuel economy.

A Hoffman heating engineer, without obligation, will gladly explain to you the dependable system of automatic controls which make Hoffman Controlled Heat so desirable for schools. Write too, for our booklet "Controlled Heat." Hoffman Specialty Company, Inc., Dept. AS-12, Waterbury, Conn.

HOFFMAN Controlled HEAT

Also makers of Hoffman Venting Valves and Hoffman-Economy Pumps

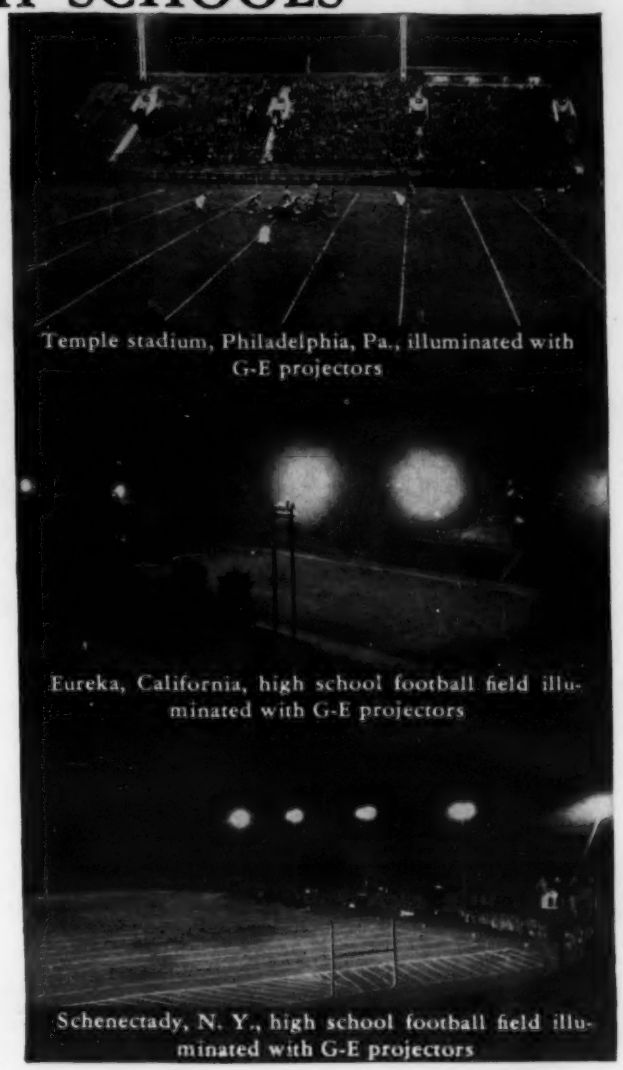
HALF A HUNDRED HIGH SCHOOLS

Play Football Under G-E Floodlights

HALF a hundred high schools — and as many colleges — have installed General Electric floodlights and are taking advantage of evening practice and evening games.

Coaches appreciate the opportunity for extra drill; players enjoy the cooler conditions, especially in the early part of the season; managers welcome the big addition to gate receipts when evening games are played; friends of the school find these games the best opportunity to keep in touch with school athletics; everybody is enthusiastic over the superb illumination.

Wide experience with athletic fields of every size and location has given G-E lighting engineers a precise knowledge of every floodlighting requirement. A G-E specialist will be glad to visit your field and make recommendations. He will also tell you about the high qualities and permanent utility of G-E floodlighting projectors and how they can be used for other school purposes before and after the football season. Address the nearest G-E office or Lighting Division, General Electric Company, Schenectady, New York.



Temple stadium, Philadelphia, Pa., illuminated with G-E projectors

Eureka, California, high school football field illuminated with G-E projectors

Schenectady, N. Y., high school football field illuminated with G-E projectors

710-152

GENERAL ELECTRIC

SALES AND ENGINEERING SERVICE IN PRINCIPAL CITIES

(Concluded from Page 72)

not purchase films for school purposes. Only 39 communities maintain film libraries, while 54 communities reported that they did not plan to establish such libraries.

In 13 per cent of the communities "free" films were used exclusively. In 19 per cent of the communities the rental price per reel was less than 99 cents; in 28 per cent they ranged from $1 to $1.99; in 17 per cent from $2 to $2.99; and in 23 per cent of the communities the rates were $3 or more.

The report showed that 17,964 of the 44,186 total programs were in the elementary schools, which amounted to 41 per cent. Twenty-seven per cent were in the junior high schools, and 32 per cent in the senior high schools. The most common subjects in each type of school were in the social sciences, natural sciences, and physical education.

The report contained data relating to the extent to which motion pictures used for educational purposes pertained directly to the subjects taught in the schools. Of the 517 superintendents, 463 answered the inquiry. A total of 207, or 45 per cent, stated that the films were directly related to the courses of study; 162, or 35 per cent, reported that they were indirectly related; 75, or 16 per cent, stated that one half of the films contained material pertaining to schoolwork, and the remaining 19, or 4 per cent, said that the films were adapted by the teachers to educational projects.

Data regarding the teacher's evaluation of motion pictures as an instructional aid were reported in connection with the study. Reports on this item were received from 711 teachers who had used films in the classrooms. The educational outcomes were selected from a report on an experiment with 5,000 pupils in geography and general science in the use of motion pictures for instructional purposes.

Specially prepared teachers' aid pamphlets to guide teachers in the use of educational pictures were reported as being helpful but not generally used. These pamphlets contained such items as a statement of the purpose of the film, a suggested plan for presenting outstanding features, special items of information for the teacher who might not otherwise have materials available, and sources of additional information.

INTRODUCE NEW GRADING PLAN

♦ Montpelier, Vt. The administrative department of the city schools has recently undertaken a program providing for a new system of grading of pupils, to be placed in operation during the school year 1932-33.

Under the present plan of grouping, pupils are selected according to the teacher's judgment and the results of intelligence tests. This has resulted in the usual disadvantages and in the light of recent studies, the administrative staff has concluded that possibly the advantages are not nearly so great as they were once thought to be.

The new plan is intended to promote a democratic atmosphere. Under the plan, there will be two divisions in each grade, each to be approximately equal in ability, with a third smaller division to be made up of pupils who are slightly below the standard. Each of the first two groups will be referred to as a sixth grade, or a seventh grade, while the latter group will be designated a presixth, or a preseventh group.

The plan is being tried out in the first and second grades, and if found successful, will be introduced in the other grades a class at a time.

ADMINISTRATION

♦ Greenville, Tex. With the opening of the fall semester, the one-hour period of recitation and supervised study was put into operation. Reports covering the work of the first semester indicated a considerable decrease in the number of pupil failures under the one-hour period plan. The number of failures had decreased from 11 per cent in 1930 to 7 per cent in 1931.

♦ Gary, Ind. Supt. W. A. Wirt has announced a new plan of school organization which allows pupils to advance according to their respective abilities. Under the new plan, it is possible for the pupils to complete the grade school in seven years, and the high school in three years. An estimated saving of $80 per student will be effected in the grade schools and $150 per student in the high school.

♦ Cleveland Heights, Ohio. Under a new regulation proposed by Principal R. E. Morley, extravagant school apparel is to be eliminated. Mr. Morley favors middies and skirts, or sweaters and skirts for high-school girl students.

♦ The Kentucky senate has approved a bill, making the office of county superintendent of schools elective, instead of appointive. The bill must be presented to the house of representatives for approval.

♦ Wausau, Wis. The local public schools are making use of visual aids for classroom purposes to a greater extent than is practiced in many schools. The teachers and pupils in the schools have access to a stereopticon and slides, as well as a film-strip projector. There is maintained for constant use a central library of 5,000 lantern slides and 200 film strips, which are available at all times to the teachers and pupils. Each individual school has a special cabinet containing rocks, soils, minerals, raw and manufactured materials for use in connection with the study of geography, science, and history.

♦ The superintendents of the Utah schools at a recent meeting held at Ogden gave expression to the following: "We feel strongly that schools should remain in session the customary length of time so that the children may not be called upon to pay the price of a temporary financial depression and deprived of adequate educational training, the greatest blessing which can come into their lives; and furthermore, that the state itself may not be deprived of its greatest assets, viz., a body of men and women adequately trained to participate intelligently and successfully in the life of the state."

♦ The board of education of Dayton, Ohio, has decided to continue the policy of holding private committee sessions. The Dayton *News* says: "The decision is a wise one. There is no good reason why the board of education should be compelled, with the infinite matter with which it has to deal, including many matters personal to individuals, to do its thinking out loud. No good purpose would be served and the work of the board would be necessarily obstructed by open committee sessions."

♦ An extensive testing program is being carried out in the Sandy township schools, Du Bois, Pa., under the direction of Supt. J. L. Hackenberg. The program was opened with an achievement test in the first eight grades which, on the whole, proved satisfactory. The tests revealed a number of cases for which remedial programs were set up. Home visitations were made in a number of cases.

"ALLENDALE," THE NEW SCHOOL-ADMINISTRATION OFFICES OF MOLINE

Moline Occupies New Administrative Offices

The public-school system of Moline, Ill., has recently come into possession of a fine residence, adjacent to the high school, which is to be devoted to school purposes. The property, which is valued at $200,000, was the former home of Mr. Frank Gates Allen, and was presented as a gift to the Moline board of education.

The residence is locally known as "Allendale," and occupies practically a square block. It is considered a most welcome addition to the local educational plant because it is conveniently located and easy of access, and its large rooms offer a large amount of space for various school activities.

The first floor has been adapted to use as a school administrative center for the offices of the board of education, as well as those of the superintendent of schools, of the business department, and of the various supervisors. A large library, beautifully paneled in mahogany, has been opened to the high-school students as a "browsing" library. The dining-room will be used to accommodate the larger dinner meetings of the various teachers' and school clubs.

The second floor has been rearranged to house the home-economics departments of the senior high school and of the Central Junior High School. It provides three sewing rooms, three cooking rooms, an administrative room, and a restroom.

THE SUPERINTENDENT'S OFFICE AND BOARD MEETING ROOM

The ballroom on the third floor offers space for various community and school gatherings and social activities. In one wing of the building on this same floor there is a complete flat for the use of the custodian of the building.

The large and attractive grounds will be maintained as a beauty spot and public park for the use of the community.

Keeping a Record of the Misfit Child's Activities

Carroll Atkinson, San Luis Obispo, California

Every city has its problem children. Compulsory educational laws bring these children into the public schools. Unfortunately a very small percentage of the school population often requires a disproportionate amount of time and energy from both school administrators and classroom teachers. Sometimes it happens that the upbuilding influence of a splendid teacher is dissipated and even ruined among a group of good children because of the presence of one or two of these malcontents. Such a condition is manifestly unfair and represents serious inefficiency in school management.

Various expedients, up to the reform school itself, are now being employed to save the misfit child from himself, and failing in that, at least to protect the rest of the school society from the more pernicious of these influences. A doctor, in seeing a patient, must be able to diagnose the case quickly. But before he is able to do this, he must know the facts about fever, chills, and the numerous other symptoms. Likewise the city welfare worker must know as many of the facts possible to be able to diagnose correctly and to prescribe for the needs of the misfit child.

The following simple plan is suggested for the keeping of data regarding misfit children's cases. A similar plan has been used successfully by Earl R. Smith, attendance officer of the Pasadena schools. The plan may be changed in detail to fit any local conditions. Manila folders, three by five inches or any other convenient size, are used. These folders should have an overlapping which allows sufficient room for writing the last and first name, name of school attended, and address of the child. Paper of several different colors which will fit conveniently into these folders is the only other material needed for this system of recordkeeping.

The folders are kept in alphabetical order, preferably boys separate from girls, for the sake of quick reference. The paper is of different colors to show the various types of delinquency at a quick glance. The following is a suggestive differentiation of colors:

1. White—general, i.e., cannot be classified in other ways.
2. Blue—stealing.
3. Green—truancy.
4. Yellow—sexual perversion cases.
5. Orange—delinquency involving an adult.

The first severe clash between the child and the law requires the making out of the manila folder with name, school, and address noted. Information is then recorded on the proper colored sheet of paper and is inclosed in the folder. Dates are always very important data and should be recorded. If the child never errs again, the record remains unused in the confidential files. If the child errs frequently thereafter, the contents of the folder increase and the evidence against the child piles up. The more frequent the violation, the more drastic the action after each new outbreak.

The working of this system may be shown by an actual case. A certain boy disliked school and was a frequent truant. Each time he took a forbidden vacation, it was recorded on green paper. In one of these truancy outbreaks, he became mixed up in an attempted robbery (blue paper record), but after an extended period in a special class where life was less pleasant than in regular school classes, he settled down to good solid work and has given no trouble during the past year. If this lad should ever again kick over the traces of home and school restraints, he will be confronted with exact data concerning his none-too-rosy past record.

Thus if an interested person looks over any particular case record, he may see at a glance what the general trouble is from the color of the paper included in the record. The written information then gives exact details. This system of recording juvenile misconduct for present and future study and action is recommended as one that is simple and flexible in its operation and which costs but little in material and time when once established.

SCHOOL-BOND SALES

The interest rate on municipal and school bonds continued its upward climb during the month of January. A rate of 4.99 per cent was quoted on February 1, as compared to 4.87 per cent on January 1.

The total sales of school bonds for the month of January were $5,338,915, as compared with an average January sale of $26,067,077 during the four years preceding.

The largest sales were New York state, a total of $1,966,500, and Maryland, $1,141,000. In Pennsylvania, the issues for the month amounted to $727,000; in Massachusetts, $667,000; in New Jersey, $178,000; and in Texas, $115,000.

SCHOOL-BUILDING CONTRACTS

Contracts for new school-building construction during the month of January in 37 eastern states reported by Dodge amounted to $4,356,200. The number of projects was 67 and the number of square feet in the buildings, 1,000,500. In 11 states west of the Rocky Mountains, 4 contracts were let, at a cost of $243,000. In these states, 10 further projects were reported, involving an expenditure of $623,000.

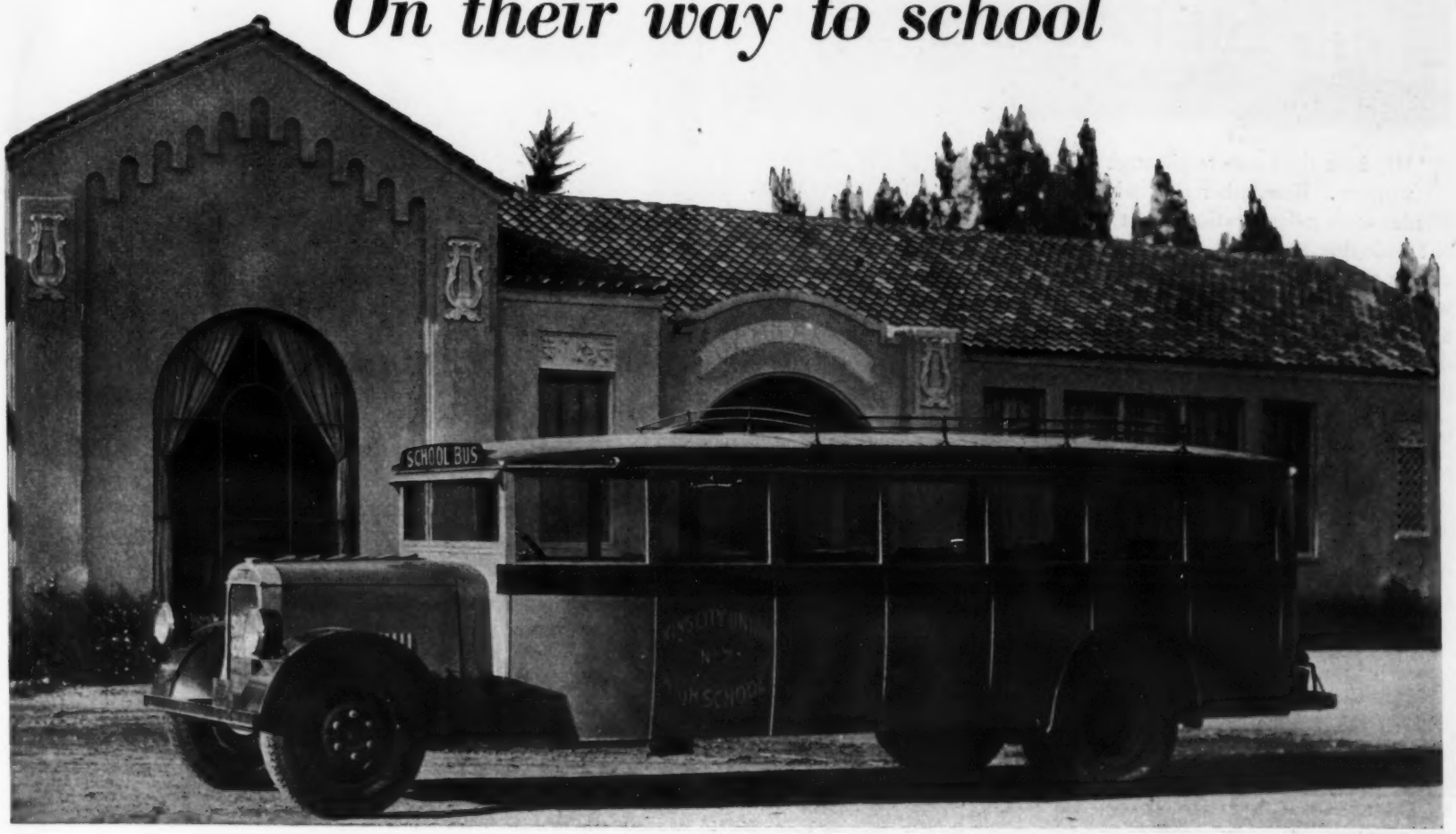
ADJUSTING CLASSROOM SHADES

The following suggestions are offered by the New Jersey Education Bulletin on adjusting shades in classrooms so as to receive as much light as possible:

1. Borrow a foot-candle meter and measure amount of light in all parts of the room under varying weather conditions and with shades at different levels.
2. Use a minimum standard of ten foot-candles of light as an aim.
3. Admit as much light as possible from lower half of window when sun's rays do not result in glare.
4. Throughout entire day admit all possible light from upper half of window, by dropping shade from top, excluding sun's rays when glare results.
5. In grades above the primary, have pupils assume the responsibility of shade adjustment, developing this as health-education instruction in project form.
6. Make every effort to have old shades replaced with buff-colored ones which are center hung, overlapping each other, and which are wide enough to prevent any cracks at the edge of the window through which streaks of light may enter.

To Keep Them Safe

On their way to school



One of a fleet of buses equipped with L·O·F Safety Glass, operated by the King City Union High School, King City, Cal.

● *A recent authoritative survey in which approximately 150,000 motorists were questioned, showed that 45% of all persons injured in motor car accidents were cut by broken, flying glass.*

Children must not be exposed to such a needless, avoidable danger. With all the safeguards now incorporated in every school *building*, it is only common sense to provide similar protection in the *buses* which carry the children between their homes and the classroom. It should be general practice now for school authorities to insist on Safety Glass in the windshield, doors and windows of every new bus they order. It is just as important that present equipment be modernized as it is that new equipment be thoroughly modern in every respect. That means Safety Glass. The sparkling, brilliantly finished Polished Plate Glass and transparent plastic, the specially prepared, exclusively employed bonding agent which holds them firmly together, the perfected bonding process and the *sealed edges* of the L·O·F product assure a Safety Glass which affords lasting safety and clear vision.

L·O·F Safety Glass is used in Bender Bus Bodies, Twin Coaches, Brill Trolley Buses, Cincinnati Trackless Trolley Coaches, Hackney and Springfield School and Passenger Bus Bodies, White School Buses, and York-Hoover School Bus Bodies.

Specify L·O·F Quality Glass for original glazing and replacement in all school doors and windows.

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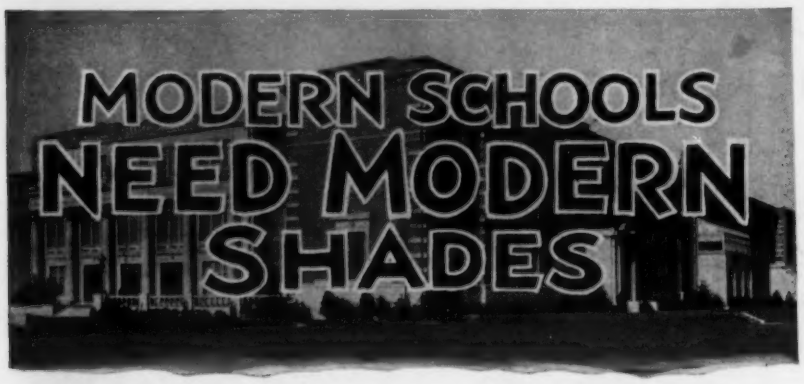
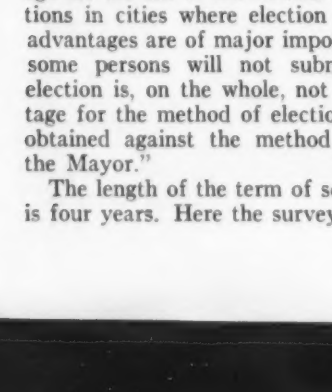
SAFETY GLASS

LIBBEY•OWENS•FORD GLASS COMPANY, TOLEDO, OHIO
Manufacturers of Highest Quality Flat Drawn Window Glass, Polished Plate Glass and Safety Glass; also distributors of Figured and Wire Glass manufactured by the Blue Ridge Glass Corporation of Kingsport, Tenn.



THE best light enters through the upper third of the classroom window. Remember that when you buy shades for your school. Shades with rollers stationary at the top are detrimental. They shut out valuable top light. Sometimes cause eyestrain that seriously affects child health. Don't run this risk. Use ADJUSTABLE *Shades* with the *center hung or top suspended roller* that can be drawn *either up or down*. This allows you to cover just the window area necessary to shut out excessive light and glare. Thus pupils work in the best light *always*.

Obsolete shades are out of place in the modern school. Use Draper Shades. They are more practical, more economical, longer wearing. Interesting literature and sample of Dratex cloth (taken right from stock) sent free to educators. Please address Department AA.



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. . . SHADE CO.
MAKERS OF BETTER SHADES FOR OVER A QUARTER CENTURY
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A Sensational NEW Wall Finish

FROM 16% to 50% more surface covered per gallon of paint. An amazing ease of flow that cuts time and labor costs. A handsome finish . . . dirt and dust resistant . . . easy to wash . . . it substantially reduces maintenance and repainting expense. This, in a few words, is the economy story of the NEW BARRELED SUNLIGHT FLAT WALL FINISH.

Before you repaint, investigate the initial and long-run savings made possible by this sensational new flat finish. Write to U. S. Gutta Percha Paint Company, 44-C Dudley Street, Providence, R. I. (Branches or distributors in all principal cities.)

Barreled Sunlight FLAT WALL FINISH
Reg. U. S. Pat. Off.

Improved Administrative Policies for Youngstown, Ohio

A study of the Youngstown, Ohio, school system just completed is of interest because it discusses with more than ordinary thoroughness the fundamentals of school administration. The survey was made upon request of the local Chamber of Commerce and the board of education by the United States Office of Education.

Among the questions submitted to the survey staff were the following:

1. Is the Youngstown method of selecting the board of education desirable?
2. Is a board of seven members suitable for Youngstown?
3. Is it desirable for a board of seven members to function through standing committees?
4. What should be the duties, responsibilities, and authority of the superintendent of schools? What should be his relationship to the board of education, the financial affairs of the schools, supervisors, principals, teachers, and children?

An Appointive or Elective Board?

The survey addresses itself *seriatim* to these several questions. The Youngstown board of education is an elective body, and the survey holds that the appointive system is less desirable than the elective. It says: "Election of board members by the people promotes the democratic control of the schools which above all exist to preserve democracy. The interest of the people in their public schools seems to furnish sufficient protection against the use of the schools by political organizations in cities where election prevails. These two advantages are of major importance. The fact that some persons will not submit their names for election is, on the whole, not so great a disadvantage for the method of election as those that have obtained against the method of appointment by the Mayor."

The length of the term of school-board members is four years. Here the survey says: "A four-year term is unfortunate for three reasons: first, four years are not long enough to permit a school-board member to do much more than acquire the experience necessary to enable him to vote intelligently upon the questions that come before the school board; second, it favors sudden changes in policies and militates against a fair trial of the policies adopted before appraisal is made; third, it gives opportunity for any active group of citizens representing a special interest to gain control of the board in a brief time which, when it occurs, leads to unrest within the school system and lack of confidence of the community in the school board as an instrument for school control."

The survey staff held that seven members could perform the task satisfactorily, and added that 21 cities out of 55 having a population over 100,000 had boards of that size.

Are Standing Committees Desirable?

The Youngstown board of education maintains six standing committees and some special committees. In discussing the actions of some of the committees, it develops that their recommendations have conflicted with those of the superintendent. The survey report says:

"It is the obvious intent of the law that the nominations of the superintendent shall be made to the board of education as a whole which then has the right to approve or to disapprove and, in case of the latter, the superintendent again has the right to appoint and to continue to do so until some person satisfactory to both the superintendent and the board is found.

"Committee action in Youngstown has undoubtedly led to the appointment of some teachers not approved by the superintendent but who were nominated by him because of the insistence of board members. It is believed that motives controlling board members function in committee sessions which would not be manifested in open board meetings. The same opportunity for the intervention of personal desires by members of the board for the benefit of themselves or for their friends is made possible in business matters by their review, in committee session, of questions upon which the superintendent or the director of schools is competent and trustworthy.

"Another effect upon school-board action, growing out of the prevalence of committee activities, is the tendency upon the part of committees to bind the board, not legally but morally, to certain courses of action and also the tendency to form cliques. So long as there is a great deal of discussion within the board upon matters of a technical nature for which the members take unwarranted responsibility, and so long as the committee system exists to solidify differences in opinions, factional strife will be strongly promoted."

Thus the question regarding standing committees is answered in the negative.

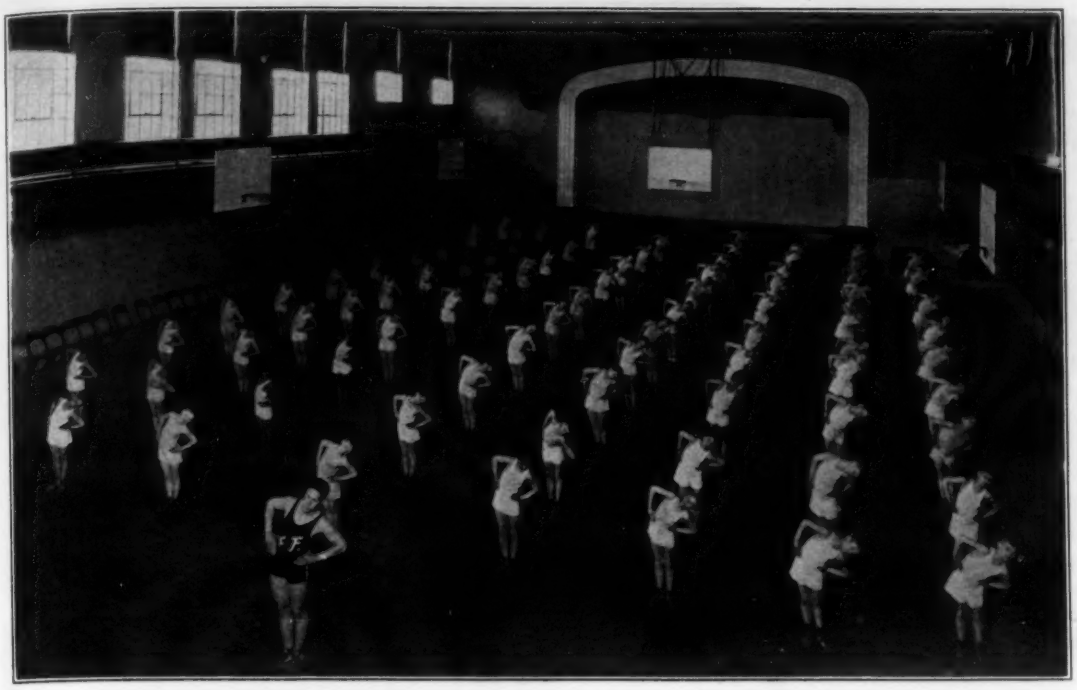
Scope and Function of Superintendent

The fourth question, namely, that which relates to the duties, responsibilities, and authority of the superintendent, is discussed at length. The surveyors define the function of the board of education as a policy-making body which reflects the will of the people. It must delegate administrative authority and exacts responsibility. The report says:

"The rules and regulations of the board of education should specifically state that the superintendent of schools is the chief executive officer of the board and that he only is responsible for the conduct of the schools. The authority given him should be commensurate with this responsibility. He should be given the authority to appoint all of the other officers and employees of the board, except the clerk-treasurer, subject to the approval of the board. Undoubtedly, he will have to depend upon his subordinates for suggestions, but this authority gives him the power of approval or disapproval of those suggestions and the power to recommend such appointments as he deems best.

"The preparation of the budget should be under his direction and control and it should also be re-

(Concluded on Page 80)



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Father Flanagan's Boys in New Training School

A Mecca to more than 200 orphaned boys is this non-sectarian home and training school established in Omaha fourteen years ago by Father E. J. Flanagan. Through his untiring efforts and the help of friends, it has grown from its humble beginning to a nationally known institution with large, well-kept buildings, equipped to train homeless lads for useful lives. Under a staff of men who have made a special study of boys, each one is given individual care. . . ten trades are taught, including instruction up to the ninth grade. . an all-round development that makes for healthy industrious manhood.

Lahr & Stangel, architects who designed the gymnasium and shops for the Home, chose BLOX-ON-END for the flooring. They knew it afforded the greatest safety «» no slivers «» the longest service «» durable as the building. BLOX-ON-END lays smooth «» stays smooth. It is comfortable under foot, quiet, and presents a good appearance. Widely used in the finer type school. Return the coupon for Descriptive Booklet.

Ten trades are taught «» including instructions up to the ninth grade.

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Lay's Smooth Stay's Smooth

Bloxonend is furnished in 8 foot flooring lengths.

The tough end grain forms the wearing surface.

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KANSAS CITY, MISSOURI

TRUSCON The Most Complete Line

The Best Daylighting for Schools

DONOVAN Awning Type

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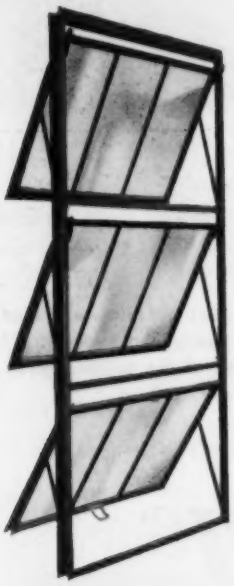

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For the most satisfactory classroom window, choose the Donovan Awning Type. The complete line of Truscon Steel Windows includes types for shops, laboratories, offices, and other educational buildings.

Write for catalog and full information.

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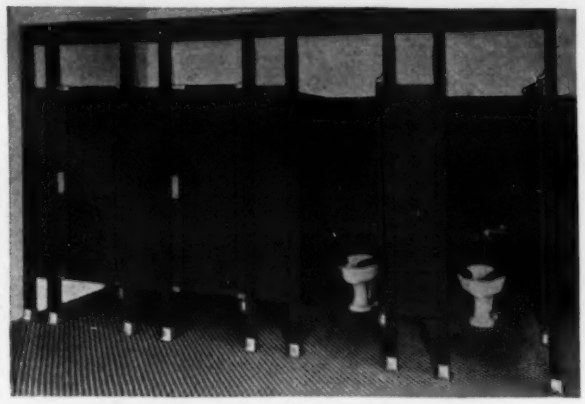
● Miami High School, Miami, Fla. *Architect*—Kiehnel & Elliott



Barringer High School, Newark, N. J.

EXTRA HEAVY *Construction*

THE "MASTERCRAFT" steel toilet partitions shown above are a Super-Sanymetal design, featuring extra *weight* for extra *wear*. Constructed entirely of 12-gauge metal, equipped with heavy-duty brass hardware, they are substantial enough to outlast most buildings and to resist all forms of deterioration. A virtually time-proof installation intended for architects and schools who demand the best obainable.

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Sanymetal Steel TOILET PARTITIONS

(Concluded from Page 78)

quired that it be presented by him to the board of education together with such facts as appertain to the items contained therein, and with such statement of policies, both general and special, as will contribute to the board's full understanding of the purposes of all the expenditures.

"It should also be specified in the rules and regulations that he shall have the oversight and control of the operation of all departments of the school system; that all recommendations of members of the staff should be submitted first to him and then presented by him to the board in such form and with such modifications as he desires to make; that he shall, from time to time, present such theories of education and such plans for the improvement of the schools as he deems wise."

Financial Retrenchment Does Not Delay Educational Progress in East Chicago, Ind.

Forty-six distinct and important items of progress during the past two years of depression are listed by Mr. John G. Rossman, in a statement made public at East Chicago, Indiana. The East Chicago schools, according to this report, made definite progress along educational lines and greatly increased their service to the community in the face of unusual difficulties and a considerable decrease in financial support.

Among the most important accomplishments note these: (1) better adaptation of the schools to the pupils' needs; (2) increased housing capacities in growing sections of the city; (3) extension of the schools to the needs of the community; (4) improved health supervision; (5) distinct improvement in instruction methods; (6) relief work among needy children; (7) higher standards of maintenance and a distinct improvement in the entire school plant; (8) the employment of local teachers on the basis of merit and as a means of local relief; (9) improvements in the methods of financing the schools to avoid waste; (10) an increase in the length of the term and a decrease in the cost of teaching.

Mr. Rossman notes particularly the following gains which have been made for the direct advantage of the taxpayer: (1) The actual number of teaching days has been increased without additional cost. This has been effected by eliminating holidays and utilizing for teaching purposes other days previously set aside for special purposes. (2) Marked economy has been effected by increasing the number of pupils per teacher. A total of 44 teachers which would cost $78,000 a year, have been saved by increasing class size without any reduction in the advantages of good instruction. (3) Economical use of a new teaching plan in the junior high school has resulted in increased service. (4) Increased use of the school plant has been made by organizing larger classes, more careful scheduling, and by longer daily use of shops, laboratories, etc. (5) Economies in plant operation have been effected by the installation of stokers, low-pressure boilers, better lighting, weather stripping, and water-saving devices. (6) Economies have been produced by reducing the minimum salary of teachers from $1,100 to $1,000 per year. (7) Increased efficiency has resulted from storing and delivering supplies and requiring economic use of all school materials. (8) The lowering of insurance rates has come from eliminating all fire hazards and making improvements in wiring installations. (9) A general program of studying other elements of cost, especially in the high schools, has reduced expenditures without impairing the instructional service.

In support of this economy program, the schools have enjoyed greater use of the playgrounds and of the school buildings for instructional and recreational purposes, and the school system has distinctly advanced in its entire program of service and in its spirit of service.

BOARDS OF EDUCATION

♦ Newport, R. I. The school board has asked the superintendent of schools to make a complete survey of the school system. A report on the findings of the survey will be presented to the board late in the spring.

♦ "The board of education, in common with other public bodies, must go through a period of reconstruction during the coming year," said Harry A. Tukey, newly elected president of the Omaha board of education. "We spend approximately one half of the city taxes and must economize wherever possible. We have one advantage over other public officials. We are not seeking reëlection. We can do without fear or favor what we think is right."

♦ Jacksonville, Ill. The board of education has revised its financial policy through the adoption of a new budget system. The system which is similar to that used by the city government, requires a minimum amount of bookkeeping, and yet indicates at any time just where the school system stands financially. As 90 per cent of the budget headings are already in use in the finance books, the new system simply means that all accounts will correspond with the headings in the budget, and that each department will have its expenditures itemized the same as the city departments.

♦ Oak Harbor, Wash. The school board has taken the first step in eliminating the semester promotion system with the order to discontinue midyear grammar school entering classes. Students already in school, who have completed the requirements, will be promoted as usual, but those in the middle of a grade, must repeat the work of the grade.

♦ Western Springs, Ill. The school board has raised the tuition for students in the local junior college. Beginning with next September, tuition in the junior college will be $40 per semester, or $80 per year. The former tuition was $25 per semester.

♦ Cranston, R. I. The school board has adopted a suggestion of Supt. J. K. Fenner, providing for a new high-school schedule, with longer periods, and an assembly and homeroom period.

♦ Norway, Mich. The school board has ordered that the length of the school day in the junior and senior high schools be extended by thirty minutes. The extra time in the schedule has been obtained by shortening the lunch period and extending the afternoon session.

♦ Tacoma, Wash. The directed-study plan has been extended with the opening of the new Mason intermediate school under this plan.

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SAVES TIME, LABOR, MATERIAL
... GIVES BETTER RESULTS

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Simon & Simon, Architects.

... USED *throughout* THE DREXEL INSTITUTE DORMITORY

The new *STEELTEX* 4-inch HOLLOW PLASTER PARTITION, using the *STEELTEX* Partition Stud and Ribbed *STEELTEX* Lath, is so simple to erect, so practical and so economical that architects and builders are wondering why no one ever thought of the system before.

Ease and speed of erection are astonishing,—60 to 70 yards a day average, including studs and lathing. No dirt . . . no fuss . . . no broken material to cart away . . . the job is cleanly done. Although the *STEELTEX* Partition System is new, there is nothing experimental about it . . . nothing untried . . . nothing for the lather to learn in erecting . . . everything is evident.

The *STEELTEX* 4-inch HOLLOW PLASTER PARTITION is light in weight, yet extremely rigid and solid, with unusual resistance to passage of sound . . . and has correct acoustical and insulating qualities.

Tests indicate a greater sound-proofing quality for the *STEELTEX* 4-inch Hollow Partition.

In a letter dated January 21, 1932, addressed to Mr. Virgil L. Johnson of the Board of Public Education, 21st and Winter Streets, Philadelphia, Mr. E. P. Simon, of Simon & Simon, architects, says:

"*STEELTEX*, as manufactured by the National Steel Fabric Company, was used as forms and reinforcing in the concrete floors, and *STEELTEX* with *STEELTEX* Channels were used in all non-bearing partitions throughout the Sarah Drexel Van Renssalaer Dormitory for Girls at the Drexel Institute.

"*STEELTEX* was used for the partitions because of the saving in dead load and, at the same time, its effectiveness as a sound retarder.

"After considerable investigation, *STEELTEX* was also used in the floors because of its economy without detriment to the structural effectiveness of the floor.

"It may also interest you to know that while the building has been in use for a period of nine months, a recent careful inspection revealed that no cracks whatever have occurred in either the floors or the partitions."

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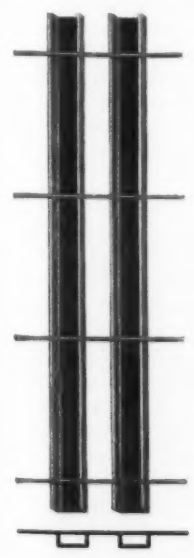
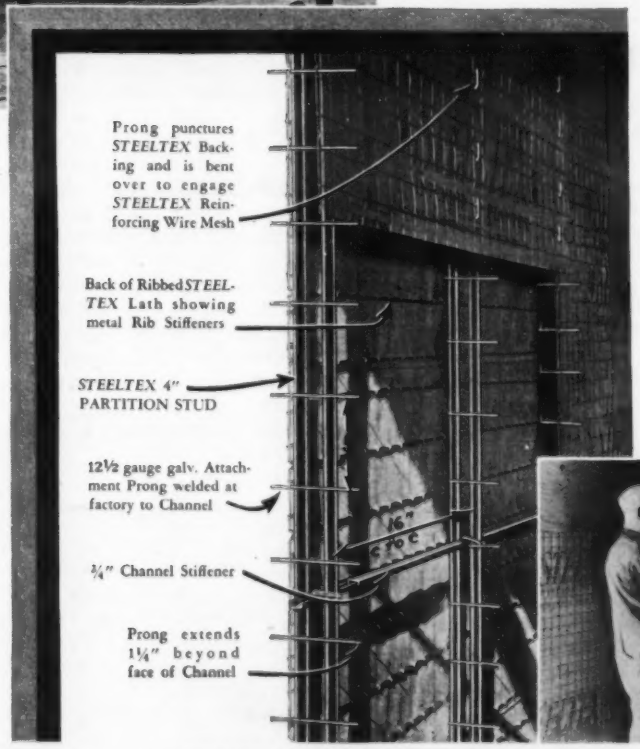


Cross section and view of STEELTEX 4-in. Hollow Partition Stud. Galvanized wire attachment prongs are electrically welded to the ¾" channels.


Prong punctures STEELTEX Backing and is bent over to engage STEELTEX Reinforcing Wire Mesh
Back of Ribbed STEELTEX Lath showing metal Rib Stiffeners
STEELTEX 4" PARTITION STUD
12½ gauge galv. Attachment Prong welded at factory to Channel
¾" Channel Stiffener
Prong extends 1¼" beyond face of Channel

4" HOLLOW PLASTER PARTITION using STEELTEX 4" PARTITION STUD and RIBBED STEELTEX LATH

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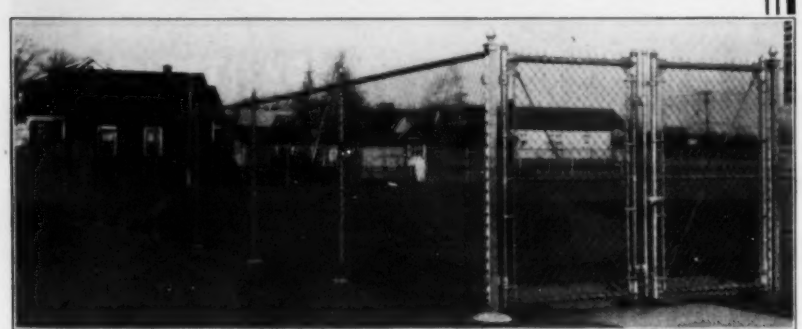

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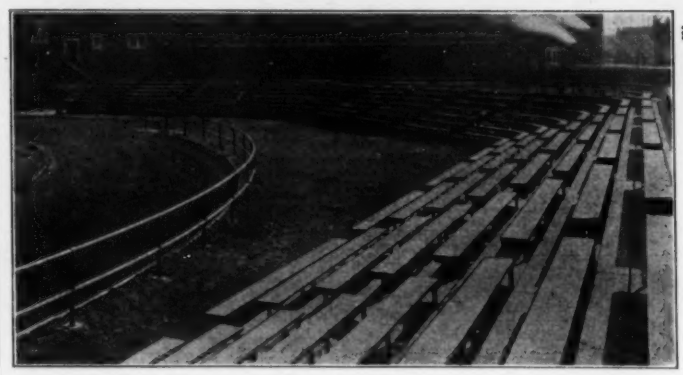

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School Boards Meet in Convention to Discuss Depression Problems

NEBRASKA SCHOOL BOARDS AND EXECUTIVES MEET AT FREMONT

The annual convention of the Nebraska School Boards and Executives was opened at Fremont, on February 9, with an initial registration of 126 school executives and members of boards of education. Mr. John Wiltse, of Falls City, was in charge of the opening session on Tuesday morning.

Dr. F. E. Henzlik, dean of the Teachers' College of the University of Nebraska, who delivered the principal address of the morning session, took for his subject "Choosing and Using Educational Leadership in Nebraska." Dr. Henzlik expressed the opinion that a superintendent who is constantly on the watch for a better position than the one he is holding, exerts a destructive influence upon the public-school system. "A superintendent who is always thinking how to win a favor, or fearing discharge, cannot render a good judgment or give the best of service," Dean Henzlik said. "You cannot get good service by tearing up the roots of his friendship and by breaking up the social life of his wife and children by causing him annually to seek employment elsewhere." He spoke especially of those little towns where everybody is telling the schoolman to be on the lookout for a bigger place—a poisonous philosophy which is eating into the heart and soul of public education in Nebraska. Such a condition, the Dean emphasized, hinders the administration of the superintendent's program of school development, as well as teaching activities of his staff. It results in waste and inefficiency in the school system and injury to the children.

The afternoon session on Tuesday opened with talks by Mr. G. C. Chadderdon, of the Cambridge school board, Supt. P. E. Seidel, of Wahoo, Dr. W. H. Morton, of the University, Mr. F. L. Willis, president of the state association of school custodians, and State Supt. Charles W. Taylor, of Lincoln. Dr. George W. Frasier, of the Colorado Teachers' College, and President John Wiltse of the Association were the speakers at the annual banquet on Tuesday evening.

At the opening session on Wednesday morning, Supt. A. H. Waterhouse of Fremont, led in the discussion of the requirements for school recognition by the Northcentral Association. A committee was appointed by the president to study the matter. Addresses were given by Dr. George W. Frasier, of the Colorado Teachers' College, on "Education in the Time of Crisis," and by T. L. Mathews, of Fremont, on "Abraham Lincoln." Dr. Frasier made the point that education should go forward in a time of crisis, and that the present generation of children, more than any previous generation, needs art and music, character and citizenship, and social information. He called attention to the fact that many have demanded that education be curtailed, but he called on all school executives to carry on until the depression is over. Fight a good fight and do not let education go backward, he said.

Resolutions were adopted by the Association recommending the utmost economy in school expenditures consistent with the maintenance of high standards. Elimination of least essential elements in school curricula, together with diligence in collecting tax revenue and adjustment of tax burdens were urged.

The meeting closed with the election of officers for the year as follows: President, Mr. O. H. Walters, Columbus; vice-president, Don Leech, Albion; secretary, Mr. E. J. Overing, Red Cloud.

WASHINGTON SCHOOL DIRECTORS MEET AT YAKIMA

The Washington State School Directors' convention was held February 9–10, at Yakima. About 200 representatives of school boards were in attendance.

The meeting manifested keen interest in all school problems. No radical resolutions were passed concerning reduction, since it was felt that the financial problem was an individual problem for each school district, and that care was needed to live within their respective budgets.

Mr. Thomas R. Cole, of the University of Washington, opened the meeting with a talk on "Why Our Educational Program is Changing"; Mr. E. W. Anderson discussed "The Liabilities of School Districts," and Mr. R. L. Spalsbury took the topic, "Indian Education in Washington." There were a number of sectional meetings, each in charge of an experienced leader. At the banquet in the evening, Mr. John Dobie acted as toastmaster.

The meeting closed with the election of officers. Mr. Z. B. Shay, of Willapa, was elected president; Mr. L. D. Burrus was renamed as secretary.

MINNESOTA EDUCATIONAL ASSOCIATION HOLDS MEETING

The Central Minnesota Educational Division of the Minnesota Council of School Executives held a meeting on February 4, in the Benson High School, Benson, Minn. At the afternoon meeting, which was open to the public, Pres. George A. Selke, of the St. Cloud Teachers College, spoke on the subject, "The Educational Program and the Present Economic Situation." Supt. G. T. Rugland, of Appleton, led the discussion on "Taxes," and Supt. E. M. Hanson, of Hutchinson, talked on "Teachers' Salaries."

PENNSYLVANIA SCHOOL DIRECTORS MEET AT HARRISBURG

The Pennsylvania School Directors' Association held their annual meeting February 3–4, at Harrisburg, Pa.

Mr. J. N. Rule, state superintendent of public instruction, speaking before the directors, said that the public-school officials face the urgent necessity for rigid economy along all lines. "To effect a safe, sane course in which every item of the program and budget can be justified," he said, "requires the best judgment of the state.

"However urgent the need for economy, we should put first our financial house in order before

(Concluded on Page 85)

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● You abolished the frame schoolhouse. In its place you now erect buildings at many times the cost of the old one. Why? To give students greater protection, greater comfort and better conditions under which to work.

● A corresponding improvement in the transportation of students is just as essential. A quality bus that will give your students full protection, decent comfort, and modern standards is the least you can afford. The Mack School Bus is as far ahead of cheap buses with truck and rebuilt passenger car chassis and makeshift bodies as today's school buildings are ahead of the old red schoolhouse. The Mack School Bus is designed and built expressly for school transportation—to Mack standards established by 31 years of bus manufacturing.

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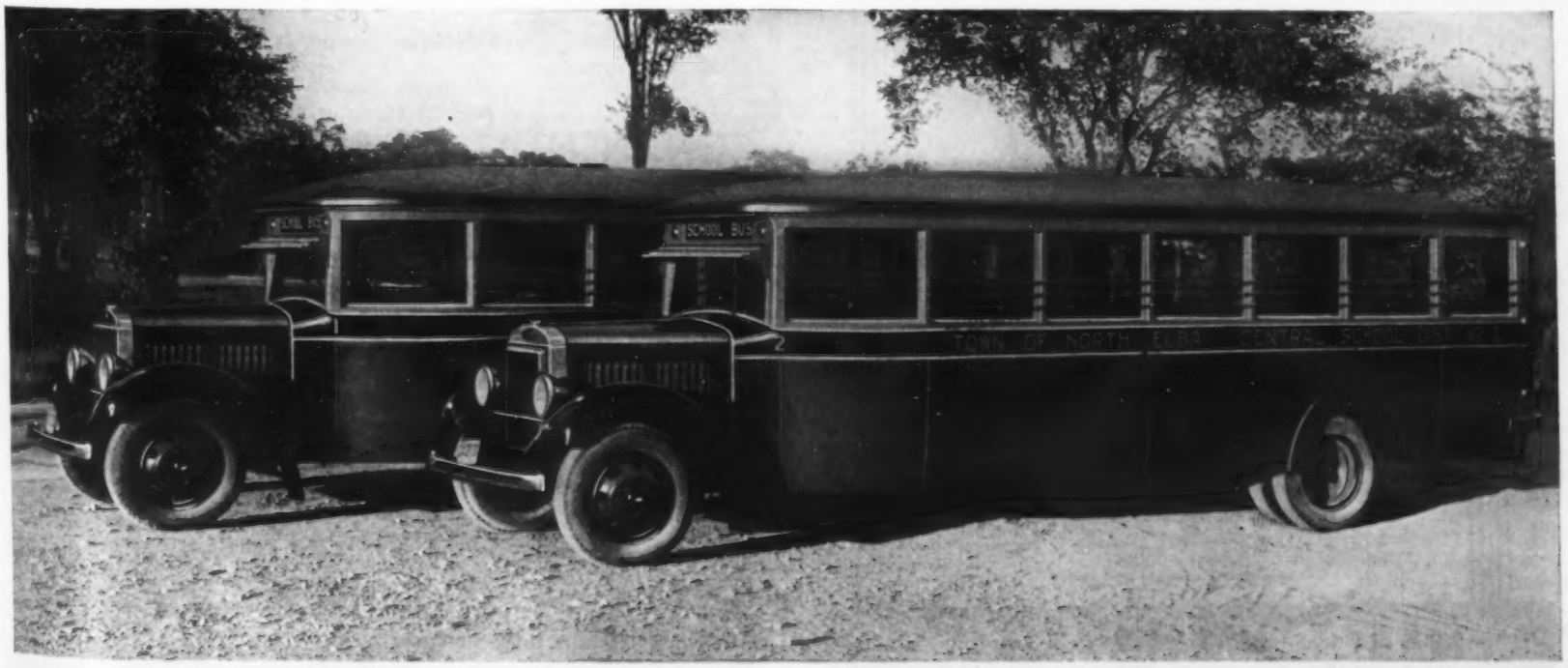
● Let us send you detailed information on the specific quality features that are built into Mack School Buses.



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NORTHERN ARIZONA STATE TEACHERS COLLEGE
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(Concluded from Page 82)

subscribing to the curtailment of educational facilities that will leave a lasting brand upon the children of today. It is necessary that we eliminate all waste before depriving the children of any portion of their birthright of a fair education."

Discussing economy, Mr. Rule urged that teachers' salaries not be reduced, stating that for two decades the chief regard of the teachers has been the service they are giving. One good teacher is worth more than a half dozen poor ones. The four-quarter plan making a longer school year, would tend to reduce instructional costs.

Referring to recent criticisms of the department of public instruction, Dr. Rule said they were made with neither a knowledge of the organization and function of the department, nor an attempt to get the facts in that connection.

Mr. J. Linwood Eisenberg, president of the State Teachers' College at Slippery Rock, urged the establishment of larger units for school districts in the state, to provide substantial economies and offer increased educational opportunities. He proposed a senior high school of not less than 300 students, several contributing junior high schools and sufficient elementary schools to supply the organization of the school district.

Speaking on "Problems of Public-School Finance," Dr. Leroy A. King, chairman of the state school finance committee, presented statistics to show Pennsylvania's ability to support education and the state's endeavor to help school districts meet their expenditures. Dr. King argued for the adoption of new forms of state taxes to relieve local real estate tax burdens. Personal income, severance, and sales taxes were mentioned as possible sources of additional revenues.

Others who spoke at the opening session were Mrs. W. E. Greenwood of Coatesville, and Rev. Dr. C. W. Petty, of Pittsburgh.

A short business meeting was held, when reports of committees and the treasurer were heard and new committees named.

Mr. H. G. Eisaman, of East Springfield, talked on "The County Library," and Mrs. W. E. Greenwood on "Coöperation of the Home and School."

The election of officers and addresses by Mr. J. A. Morrow, and Mr. M. Clyde Kelly occupied the second day's session. The officers elected for the year were:

President, Mrs. Joseph Scattergood, West Chester; first vice-president, Mrs. Ida Wallace, Swissvale; second vice-president, Mr. D. A. Miller, Allentown; third vice-president, Mrs. Warren Marshall, Swarthmore; secretary-treasurer, Mrs. Anna Dickinson, Harrisburg. The directors are Mr. G. W. Murray, Mr. C. K. Patterson, Dr. W. K. McBridge, Mr. J. F. Meck, and Mr. H. J. Stockton.

Resolutions Adopted

Among the resolutions adopted by the Pennsylvania School Directors are the following:

Repeal of Bond Tax. We favor the repeal of all taxes on the bonds of indebtedness of school districts by the Commonwealth of Pennsylvania, as such a tax adds materially to the school budget, is reflected in interest rates, complicates recordkeeping and finally is indefensible in principle.

Larger Geographical Community School Units of Control. Experience in other commonwealths has clearly shown substantial savings in enlarging the school unit of control. Its increased educational advantages are many and self-evident. We favor a careful, well-thought-out development of the unit of public-school control on the basis of geographical and community considerations.

Guiding Principle of School Control. Social and economic unrest and uncertainty prevails throughout the world. The disturbed conditions of today can largely be charged to our inability to cope with and effect a solution of the problems of civilization. With an ever-increasing complexity of our problems, one thing is clear — the oncoming generation must be better prepared than we are to shape their own destiny and the destiny of mankind. To do less than this for our children in the public schools is to invite utter and inevitable social collapse. Therefore, we urge that school boards all over the State of Pennsylvania not only maintain standards of education as they now exist, but that they be on the alert to better adapt the schools to the needs of our time. Such a program does not necessarily involve more expense, but it does involve intensification of educational thought and effort all along the line. It also means that the future of our children must not be turned over to an inferior brand of teachers but that the school system must continue to attract outstanding talent and character to its teaching force.

Teachers' Salaries. The operation of the provisions of that part of the school code commonly known as the Edmonds Act minimum-salary law, has done more than any other legislation to improve the quality of teaching, place teaching on a high professional plane, and to stabilize teaching as a profession. Therefore, we urge all school districts to observe not only in letter but in spirit the statutory salary regulations, and to view the circumvention of the Edmonds law by indirection as equivalent to open violation of the law.

Teachers' Tenure. We are opposed and shall oppose before the legislature further effort to enact a more stringent Teachers' Tenure Act. Boards of school directors must not have their hands tied in dealing with unworthy and incompetent employees.

Taxation. Approximately 80 per cent of the money to pay the costs of operating the public schools of Pennsylvania is derived from taxes on privately owned real estate, which, at the present time, does not constitute more than one fourth of the wealth of the Commonwealth. Manifestly, real estate is carrying an undue share of the tax load. In view of the present extreme depreciation of real estate and the income from real estate, the burden of taxation approaches confiscation and is unbearable. Relief is imperative. We, therefore, insist and urge the next legislature to avail itself of the reports of various tax commissions and tax studies it has authorized, and to pass such tax legislation for public education as will compel other forms of wealth to bear a share of support commensurate with the ratio it bears to real estate.

PENNSYLVANIA SCHOOL DIRECTORS MEET AT HARRISBURG

The annual meeting of the School-Board Secretaries of Pennsylvania was held February 2, at Harrisburg, with an attendance of 350 secretaries.

The secretaries discussed financial problems and taxation and closed the annual convention by amending the association's constitution to permit the reëlection of D. D. Hammelbaugh as secretary. Mr. Hammelbaugh's retirement would have been obligatory because of his retirement in June as secretary at Harrisburg. Resolutions were passed commending the state for its liberal interpretation of laws governing school finances, praising State Supt. James N. Rule for the promotion of the ten-year plan, and reiterating the organization's interest in the Washington Bicentennial Celebration.

The following officers were elected: President, Mr. Clifford F. Frey, Bethlehem; vice-president, Mr. G. A. Mincemoyer, Mechanicsburg; secretary, Mr. D. D. Hammelbaugh, Harrisburg; treasurer, Mr. W. C. Wehn, Johnstown.

RULES

♦ Minneapolis, Minn. The school board has adopted new regulations governing the summer schools. Under the rules, one summer high school will be established, the pupils to pay at the rate of $6 per subject for an eight-week term. Not more than two subjects may be carried at any one time by the pupil.

One or more elementary centers will be established, the pupils to pay at the rate of $12 for a six weeks' term for a program of four subjects, or 50 cents a week for each subject.

Summer-school teachers will be paid at the rate of $5 a day for high school and $4 a day for elementary schools; the high-school principal will be paid $8 a day, and the elementary principals according to the size of their respective schools.

The Eskimo in the Arctic Cold The Arab on the Windswept Desert . . . .

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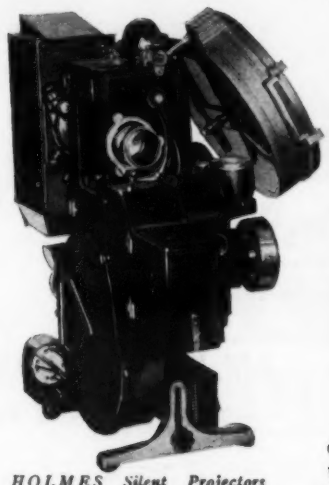

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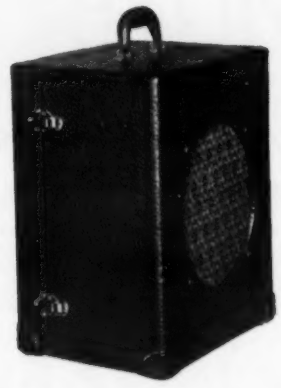

Complete outfit—which includes everything for reproducing sound-on film talking pictures, ready to run, ALL WEIGHING LESS THAN 90 LBS.

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Teachers' Salaries

♦ Atlantic City, N. J. The members of the local teaching staff have effected a saving of $120,000 in the budget by agreeing to donate 10 per cent of their annual salary to the municipality's economy program.

♦ Aurora, Ill. The east side board of education has ordered a reduction of 7½ per cent in the salaries of teachers and school employees, beginning with September, 1932. The reduction, together with other economies, will represent a saving of $39,850. The program calls for a moratorium on raises for summer school amounting to $3,850, a moratorium on absence rule during sick leave amounting to $4,200, elimination of violin, orchestra, and band instruction amounting to $2,500, a reduction in salary supervision amounting to $2,000, and the elimination of the opportunity room with a saving of $1,800.

♦ Farwell, Nebr. The school board has cut the salaries of all school employees from 10 to 20 per cent, beginning with the school year 1932-33, in order to effect a saving of $500 in the school budget. Under the schedule, the superintendent's salary was reduced from $150 to $135 a month; the principal from $135 to $120; and the teachers from $90 to $80. Janitors were reduced from $30 to $20 a month and the school secretary was reduced 20 per cent.

♦ Watervliet, Mich. A salary reduction affecting 21 teachers and 2 janitors has become effective for the year 1932-33, following an economy session when the school board ordered a 10-per-cent reduction in salaries. The superintendent of schools had his salary reduced from $3,000 to $2,700.

♦ Rockford, Ill. Under a new arrangement, the school employees have agreed to accept pay for the remaining six months of the 1931-32 school year spread over a period of eight months. Under the plan, teachers will be paid in eight monthly installments, and the monthly payroll will amount to approximately $88,000.

♦ Chicago, Ill. The board of education, at a recent meeting, adopted a resolution placing in effect salary cuts for teachers and civil service employees beginning with February 1, and totaling $6,801,000. The amount is included in the total of more than $14,000,000 eliminated from the 1932 school budget. Of the salary reduction, a total of $4,174,212 is taken from the regular teachers, who have received only two months' salary since April 1. The teachers' basic salary rate remains unchanged, since the saving will be effected by the elimination of pay for ten holidays and the closing of the schools for two weeks. Teachers will not be paid during the time the schools are closed, which will mean a week in June and a week in September.

A total of $817,000 in the salary saving has been effected with the discontinuance of night schools, summer schools, and vacation schools. The remaining $1,810,468 will come from the civil service employees, including clerks, janitors, engineers, and others who will donate a month's work without pay.

♦ Conneaut, Ohio. Continuing its policy of economizing in the operation of the city schools, the board of education has passed a resolution effecting reductions in the salaries of the school secretary and truant officer. The salary of the secretary was reduced from $100 to $80 a month, and that of the truant officer from $50 to $25 a month.

♦ Claire, Mich. The board of education has effected a reduction in the school budget by reductions in the teachers' salaries. Under the schedule, teachers who receive a salary up to and including $1,400 received a cut of 10 per cent; those receiving up to $1,500 were cut 12½ per cent, and those receiving more than $1,500 were cut 15 per cent.

♦ Sparta, Wis. The salaries of the school teachers for the next year have been reduced by the school board, 5 per cent on the first $500 salary, 10 per cent on the second, 12½ per cent on the third, and 15 per cent on all salaries of more than $2,000. The reductions in salary will effect a saving of $6,300 for the city.

♦ At a recent conference of superintendents and school-board members held at Huron, S. Dak., it was recommended that a minimum salary of $1,000 be paid to teachers, with a maximum of $1,500 after ten years' or more experience, provided the teacher has had two years' experience and two years of normal training.

Teachers in the high school, with a bachelor's degree and two years' experience will be paid a minimum of $1,300, with a maximum of $1,800 after ten years' experience. The conference voted to cut 10 per cent from the salary budget for the school year 1932-33.

♦ Chattanooga, Tenn. The school board has refused to reduce teachers' salaries, on the basis that it is more easy to cut salaries than it is to raise them after they have been reduced to a point below the schedule.

♦ Pierceton, Ind. The salaries of the high-school and grade teachers of Kosciusko county have been reduced as an economy measure. Under the new schedule, the maximum pay for teachers in the future will be $200 a month for principals; $100 to $150 for high-school teachers; and $100 to $128 for grade teachers. Formerly, principals received $230 to $300 a month, high-school teachers from $135 to $205, and grade teachers from $110 to $135.

♦ Fostoria, Ohio. The school board has adopted an economy program with the adoption of a reduced budget of $157,941 for the school year 1932. The original budget estimate of $161,241 was $10,000 less than the estimate of receipts for the year of $171,000. It was suggested that in lieu of a radical reduction in salaries, the teachers be asked to take a voluntary cut of 2 or 3 per cent per month for the remainder of the school year.

♦ Cass City, Mich. A 10-per-cent reduction in the salaries of teachers and employees of the schools has been effected, with a saving of $1,600 for the schools. The action was taken voluntarily by the school staffs, was not ordered by the school board.

♦ Celina, Ohio. The school board has accepted an offer of the teaching staff to teach at half pay during the last month of the school term. The school board is facing a shortage in funds due to a reduction in real estate values, a cut in school revenues, and the uncertainty regarding the revenue to be derived from the intangible tax.

♦ Plainview, Tex. During the past year, the regular salaries for members of the teaching staff have been maintained without any change. It is possible that the school employees may be forced to accept a small reduction in salary during the next school year.

♦ New Bedford, Mass. The school board has delayed action on a suggestion of Supt. A. P. Keith, providing for a transfer of teachers to a 52-week salary schedule as a means of keeping within the budget of $1,400,000. Under the proposed plan, all employees of the department will participate in the same donation of time and money.

♦ Taunton, Mass. The school board has delayed action on a proposal, providing for a temporary voluntary reduction in the salary of teachers in the schools. The action was taken after the special committee on salaries and expenditures had approved a 10-per-cent reduction. The plan provides for a sliding scale, with 5, 10, and 15 per cent reductions.

♦ West Springfield, Mass. The local teachers' association, at a recent meeting, listened to a talk by Mr. Norman MacDonald, chairman of the west side school board, in which he pledged that the school budget

(Concluded on Page 88)

What to do about school din?

Control it!

Acousti-Celotex, in Cane Fibre and Mineral Fibre Tiles

THE overflowing vim, vigor and vitality of youth finds its outlet in noise. It cannot be curbed. The noise cannot be stopped.

But school authorities are learning that the din can be subdued—deadened—controlled, and they are widely adopting Acousti-Celotex because of its extremely high efficiency in doing this essential and difficult job.

Instructions, shouts and laughter in the gym; noisy clatter in the cafeteria; the din of hurrying feet in corridors—the noise level of these, and a thousand and one other forms of school uproar, is reduced remarkably by the high sound absorption qualities of Acousti-Celotex permanent and paintable tiles.

They are also needed in classrooms, manual training and domestic science rooms, assembly halls, music rooms, swimming pools—all through the school.

These tiles are easily applied to present ceilings, with no interruption of school work and with no alterations in the room or building. They occasion no change in architect's plans for projected structures.

They entail no extra upkeep expense and can be left in their natural buff color, painted or stenciled in any design or color scheme.

And, by subduing reverberation, they do promote efficiency in school work for both pupils and instructors.

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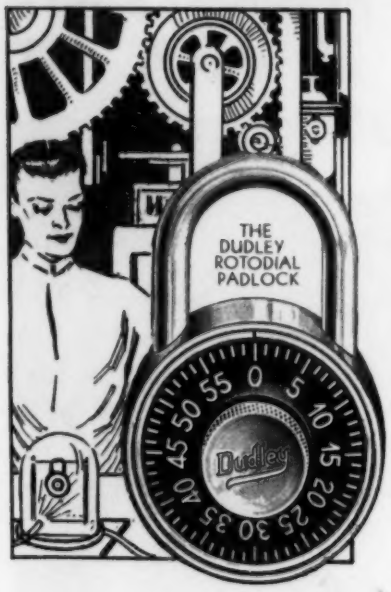

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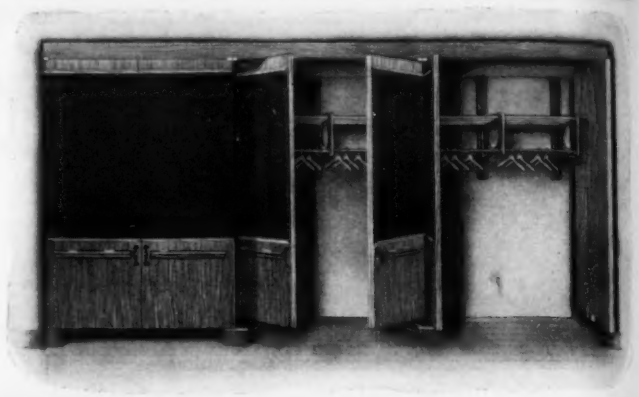

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Without jambs
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Catalog "L" fully illustrates many types of school wardrobes, with specifications and price list. Write for a copy.

W. L. EVANS

WASHINGTON, INDIANA, U. S. A.

(Concluded from Page 86)

would provide for no reductions in salary, and that if reductions were necessary, that they would be borne in the same proportion as other town employees in other departments.

♦ Chicopee, Mass. The school board has voted to continue the regular automatic increases in salaries and increases obtained as a result of professional-improvement courses.

♦ Cameron, Wis. The school board has been asked to approve a proposed 25-per-cent reduction in salaries for the next school year.

♦ Mr. J. H. Allen, a member of the school board of Hamilton county, Tenn., has committed himself to a policy providing for a reduction in the budget by elimination, rather than by reductions in salary. In a study made by Mr. Allen, he was able to show that the present school teachers receive barely enough salary for living expenses and that a reduction would prove a serious hardship for some teachers. He declared that he favored the abandonment of new or nonessential activities.

♦ Salem, Ohio. The school board has obtained a loan of $15,000 from the state teachers' retirement fund to meet the payroll for teachers and janitors.

Teachers and Administration

♦ Newport, R. I. The elementary teachers' association is offering an accredited course in literature in coöperation with Brown University. An additional course on current problems is being carried out in coöperation with the local discussion club.

The local teachers' retirement fund, supplementing the state pension, is to be reorganized, following the completion of a study now being made by a special commission. The results of the study are expected to produce some new suggestions for placing the fund on a sound financial basis.

♦ Dubuque, Iowa. The board of education has recently ordered the retirement of teachers and other employees upon reaching the age of 67 years. The new rule provides that after July 1, 1932, no teacher or other person who is 67 years of age or over, may be employed in the city schools. The resolution incorporating the retirement-age rule was adopted with one opposing vote.

♦ Minneapolis, Minn. The school board has amended its rule governing sick leave for teachers. Under the revised rule, leave of absence for personal illness, or accidental injuries, sufficient to incapacitate one from school attendance, may be granted with pay for a period not exceeding ten days in any one year, to teachers and supervisory officers. This absence leave is not to be accumulative, so that unused portions cannot be carried over into succeeding years. The leave of absence will not be granted to substitute teachers, or to those on part-time schedules.

♦ Alton, Ill. The school board has been asked to approve a suggestion of Supt. W. R. Curtis, providing that a group of college students may be allowed teaching practice in the local schools. Under the plan, 21 cadet teachers from Shurtleff College will be given one hour of teaching experience daily under the supervision of the regular room teachers. The plan involves the giving of tests to determine whether the pupils are making satisfactory progress under the cadet teachers.

♦ Joliet, Ill. To aid teachers and other employees of the city schools who have not been paid for six weeks, the board of education has made arrangements permitting such employees to make assignments of wages in $10 to $20 allotments for the payment of bills or the making of purchases.

♦ Osgood, Ind. The school board of Ripley county has ruled that no married women teachers may be employed after the end of the school year 1931-32. The rule does not affect teachers who are already on tenure, or who are already married and were teaching during the school term of 1931-32.

♦ Falmouth, Ky. The board of education of Pendleton county has ruled that married women shall be given second consideration in making appointments of teachers.

♦ The board of education of Shelton, Conn., has definitely decided not to renew contracts next May with married women teachers.

♦ Pitman, N. J. The teachers have volunteered to donate to the school board 7½ per cent of their year's salary, effective with the year 1932–33, as a means of contributing to the relief of the present financial situation.

♦ Ashtabula, Ohio. The teachers and other school employees have accepted a reduction of 10 per cent in salary for the year as an economy measure. The action was taken after the board had pointed out that a reduction in salaries, or a shortening of the school year would be necessary in order to keep within the income of the schools. The board called attention to the numerous economies which had already been made, including an increase in the teaching load, a reduction in the number of teachers, and a suspension of the annual salary increases.

♦ Akron, Ohio. The teachers have offered to take a reduction in salaries as their contribution toward keeping the schools in operation for the remainder of the school year.

♦ Vancouver, Wash. The school board has made no salary reductions for the school year 1931–32. While the regular automatic increases in salary were continued for the new year, a saving of $5,500 was effected through the elimination of four teachers. It is possible that there will be further reductions in the budget for the year, but it remains to be seen whether a salary cut will be needed.

School Finance and Taxation

♦ Providence, R. I. The school board has adopted a budget of $4,573,749 for the school year 1932–33. In the adoption of the budget, the board voted to retain the present salary item. It is proposed that the teaching staff be limited by making no replacements in the case of teachers leaving the service.

♦ Hartford, Conn. The board of education has protested to the city board of finance against a cut of $303,601 in the school budget. The board pointed out that it could absorb only one half of the reduction and asked for $152,768 additional for the operation of the school activities. A plan was proposed for cutting the school tax another two tenths of a mill, to 4.5 mills, and applying the $81,000 to the manual training item in the budget.

♦ Stratford, Conn. The town council has asked the board of education to make a reduction of 15 per cent in the budget, in line with a policy of retrenchment in all town expenses.

(Concluded on Page 90)

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ONE MODEL — ONE PRICE

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418 Kansas Avenue Topeka, Kansas

(Concluded from Page 88)

♦ The Arkansas State Department of Education has reported that, following the first of February, a total of 725 public schools, mostly rural schools, had been closed for the balance of the school year, due to a lack of operating funds.

♦ Grand Rapids, Mich. The school board has been absolved from the charge of extravagance in the school-building program in a recent report presented by Mr. A. P. Johnson, chairman of a special survey committee which made a study of school-building costs. A question had been raised by Mr. Henry Vonk regarding the higher cost per pupil in the city in comparison with other cities. The report, it was shown, took up the question, indicating that special services offered to children in the city schools had contributed to that cost. Supplemental reports were made by C. L. Goodrich, deputy superintendent of public instruction; B. H. VanderBelt, state high-school supervisor, and the architectural firm of Malcomson, Higginbotham & Trout, of Detroit. Mr. Goodrich pointed out that in some respects, more money might have been spent for some of the buildings, since a few of them did not come up to the standard in ceiling height, lighting, size of sites, corridor size, wainscoting, and classroom equipment. He pointed to a lack of such expensive equipment as swimming pools, air washers, towers, and fancy cut-stone decoration.

♦ Toledo, Ohio. The board of education has accepted a settlement offered by the surety companies guaranteeing the board's funds in the city's closed banks. The amount of the settlement was $268,000.

♦ School funds deposited by Ohio boards of education in banks must not exceed the amount of any bank's paid-in capital stock and surplus, under a recent ruling of Attorney General Bettman of Ohio. The ruling affects the Tiffin city school district, where the school funds were deposited in a national bank whose capital stock totaled $100,000 and whose surplus amounted to $50,000. Mr. Bettman held that the Tiffin school board may deposit $150,000 in the bank.

♦ Springfield, Mass. The school board has adopted an operating budget of $2,838,417 for the next school year, making a saving of over $80,365, by granting no salary increments, eliminating the summer schools, and providing for only essential items in materials and supplies. The moratorium on salary increments allows a reduction of $21,330 in the budget this year. It was believed that the suspension of salary increments woud obviate the need of any reduction in teachers' salaries during the year.

♦ Lockland, Ohio. The budget of the school board for the year 1932 amounts to $178,337, which is $8,000 less than that appropriated for 1931.

♦ Ironton, Ohio. The 1932 budget for the public schools amounts to $273,689, which is $44,395 below that for 1931.

♦ Memphis, Tenn. An annual saving of between $450,000 and $500,000 will be effected under the proposed three-year school plan which seeks to eliminate a deficit of $277,000 in school funds. About one half of the savings, or about $180,000, will be obtained through a waiver of one month's salary on the part of teachers, principals, and supervisors. The remainder of the saving will be effected by the elimination or curtailment of various school activities termed non-essentials. The Caruthers plan, it is expected, will eliminate the deficit and will leave a substantial surplus toward paying off the current deficit of $500,000 carried over from the past year.

♦ Massillon, Ohio. The school board has recently approved a tax rate of 6.182 mills, which is sufficient to yield $414,221 for the schools during the school year 1932-33. During the year 1931 the tax rate was 5.332, which netted about $451,000.

♦ Middletown, Ohio. The county auditor has ordered a reduction of $35,000 in the school budget for 1932, which calls for an appropriation of $379,000, as compared with $415,000 for 1931.

♦ Under a ruling of the attorney general of the state, the state board of education of Indiana was held without authority to withhold state aid money from local state aid schools who refuse to abandon their local units and turn them over to the township trustee.

♦ The Pearsall school system at Pearsall, Tex., with the consolidation of seven rural schools, now has one of the largest consolidated school districts in the state, comprising an area of 362 square miles and taking in more than half of the scholastic population of Frio county.

CHICAGO SCHOOL SITUATION BRIGHTER

The Chicago school situation is still in a muddle, but with the enactment of new taxation laws a brighter day is promised. These laws constitute the first step toward restoring the credit of the city of Chicago. The first of these contemplates a change in the taxing machinery, and the second provides an income tax designed to afford relief from an oppressive property tax.

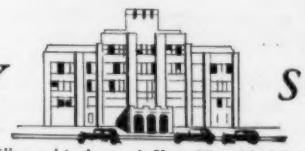
All this does not, however, relieve the immediate pressure which rests upon the city of Chicago and the several units in Cook county. The Chicago board of education is wrestling with a budget that embodies the problem of retrenchment on the one hand, and the maintenance of a school system on the other. Supt. William J. Bogan has been called upon to trim the educational needs by $7,000,000. Salary cuts are strenuously being resisted.

The citizens' committee, headed by D. F. Kelly, has recommended a cut of $9,550,000. The board of education, headed by Pres. Lewis E. Myers, has agreed to cut $3,775,000, and not more. The attitude of the banks has been defined. The budget must be squared before credit can be extended. The suggestions in the direction of retrenchment cover a variety of activities which have been carried on outside of the schools. Protests against lopping off this or that activity have been vigorously made.

Later developments showed the situation to be even more serious than first outlined. The budget, after being subjected to cuts and slashes, now stands at $90,045,140. It is stated by those in a position to know, that the income for 1932 will by no means permit the expenditures called for. In fact, the opinion is expressed that the board of education will not obtain half the sum called for in the budget figures.

Just where the proposed economies will strike is not as yet quite clear. The cry of fads and frills is heard, and the suggestions for cuts run over a long list of items. On the other hand, there are those who believe that the reassessments for 1928 and 1929, together with the tax yield for 1932, will result in a considerable sum.

The school authorities are convinced that for the present, salaries and other obligations must be met through the issuance of tax warrants. The question of paying an interest charge of 6 per cent on $24,000,000 back pay is to be determined by the courts. Until the new tax machinery is in full motion, active relief cannot be expected.

IN ALL OF THE JERSEY CITY  *SCHOOLS*

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A Summary of Published Opinion on School Ventilation

Part III Continued. Annotated Bibliography on Schoolroom Ventilation

V. T. Smith, Bureau of Educational Research, University of Illinois

15. Duffield, Thos. J., "School Ventilation Study in Syracuse," *American Journal of Public Health*, 18:326–30, March, 1928.

This article is a report by the executive secretary, and director of field studies of the New York Commission on Ventilation, of the studies conducted in Syracuse in 1926–7. He says that the studies show that mechanically ventilated schools had a total of 47 per cent more absenteeism, 67 per cent more absence due to respiratory illness, 80 per cent more respiratory illness among those present, and 77 per cent more total respiratory illness among all pupils present or absent. He then gives a list of factors which might cause error in this study and says "The conclusion that natural ventilation . . . is more healthful is hardly warranted from this study."

16. Duffield, Thos. J., "A Preliminary Note on Radiant Body-Heat and the School Ventilation Problem," AMERICAN SCHOOL BOARD JOURNAL, 75:65. July, 1927.

Satisfactory room temperature can be established and maintained only when the loss of bodily heat from each pupil is not interfered with. Evaporation from the skin, convection, radiation.

The room height may be 9, 11, or 13 ft., just so there is room above pupils fo currents. This will probably depend on lighting requirements. The temperature of the pupils air column (floor space by ceiling height) is 1 deg. F. for each 55 cu. ft. for each British thermal unit of heat output. Increasing the height 1 ft. would only change the time of heating this air, 4 minutes if there were 18 sq. ft. of floor space (35 pupils in a room 23′ × 28′ × 11.5′). Loss by radiation requires artificial radiators to be shielded and pupils to be far enough apart. This distance has not yet been determined.

17. Duffield, Thos. J., "The School Ventilation Studies of the New York Commission on Ventilation," AMERICAN SCHOOL BOARD JOURNAL, 76:57–59, 160, January, 1928.

This is a rather extended report of the 1926–27 studies of the New York Commission on Ventilation. In every case the findings were that the mechanically ventilated schools had more absence due to respiratory sickness, *except* in the one case of Danforth which had a per cent of 10.4 while the "naturally" ventilated school of Montgomery had absence of 11.1 per cent. The conclusion drawn from the study on the report is in favor of "naturally" ventilated schools. A close study of the findings, however, may just as well lead to the formation of a case in favor of lower temperatures, which are just as possible in the fan system as in the window system. All that is needed is to slow up the fans.

18. Eddy, C. A., "Meeting Today's School Need with Mechanical Ventilation," AMERICAN SCHOOL BOARD JOURNAL, 66:68, 70, February, 1923.

Describes air washer, says it draws air from out of doors, passes it through sprays of pure water to take out the dust, blows it over heating coils to warm it. He says fresh air is not always pure air, whereas air that has passed through an air washer is "within a few degrees of being absolutely pure." He says the open window is drafty. Also mechanical controls humidity. He says if the moisture in the air is too high, the perspiration does not evaporate from the body, and we are uncomfortable and the bodily functions are interrupted.

19. Educational Measurements Review (editorial), "Standards for Ventilation," *The Educational Measurements Review*, 2:6, July, September, 1926.

This is a listing of the 10 standards included in the report of the N.E.A. and American Medical Association. It is a recommendation of the open-window, teacher-control, indirect-heating method. Exhaust vents are not mentioned.

20. Foster, Charles, "Ventilating a Large High School in Duluth," *Heating and Ventilating*, 26:60–6, August, 1929.

This is a description of the ventilation of the Denfield Senior High School. The total washed conditioned air is 50,000 C.F.M. Each person is supplied with 25 C.F.M., in the auditorium with air change every 8 minutes. Auditorium temperature is maintained at seventy degrees all seasons by means of the cold water used in washing in summer.

The building is H shaped and is heated and ventilated by 6 units, each division of the school having an independent system. Fresh-air inlets are equipped with special deflectors and diffusers. The fan units are soundproofed and put on special floating foundations. The article gives floor plans and cross-section plans of the system.

21. Foulkes, J. G., and Carlile, Amos, B., "Bibliography on School Buildings," *Bureau of Educational Research Bulletin No. 6*. Madison, Wis., University of Wisconsin, 1925. 76 pp.

This bulletin contains a very briefly annotated (no conclusions given) bibliography of the literature on the subject previous to 1924. Most of the references are to material published previous to 1920. There are about 40 references to magazine articles and about 30 references to books or parts of books dealing with the subject of ventilation. The books are for the most part those published as early as 1910 or before.

22. Hallett, Edwin S., "Mechanical versus Window Ventilation," AMERICAN SCHOOL BOARD JOURNAL, 67:46–47, 99–100, 103–104, August, 1923.

He records experiments in Springfield, Mass., regarding fan and window. Neither found adequate. In the second experiment, fans and windows plus exhaust flue both were satisfactory. In the third study in 1915–16, in the school 51, Bronx, New York, it was found that the zone of comfort was lower in window- than fan-ventilated rooms. In the fourth study "both fan and window rooms were clearly unsatisfactory, principally due to overheating." In the fifth experiment (Wadleigh High School, New York) it was found that fan-ventilated rooms were *slightly more comfortable* (less odorous stufly, or drafty). He says, "It is obvious that comfort went with lower temperature and less air motion." The eighth study (New York City) showed from 18 to 70 per cent more respiratory sickness in fan-ventilated rooms. The writer says that possibly these figures do not tell the whole story since the window ventilation here used was not representative of window ventilation generally. He says:

1. Window ventilation frequently means no ventilation.

2. It requires the frequent attention of a busy teacher, who must be interested in and enthusiastic about its supervision.

3. It cannot be used in buildings surrounded by dusty streets, nor in odorous neighborhoods, and it will be affected by the prevailing winds and the plan of the building.

4. It should be more readily possible to obtain one capable engineer than to secure and constantly maintain the interest, enthusiasm and attention of a group of teachers.

The seventh experiment found that with the fan system, the inlet should be about 8 ft. high and the outlet near the floor on the same wall. The eighth experiment (School 50, Bronx) found little importance attached to lack of humidity. Experiment number nine (1915–16) showed that recirculation had little effect on achievement. Hallet here recommends the double-duct damper recirculation system. He reports that ozone was tried on 19 days and found unsatisfactory.

He says that the use of the schoolrooms depending wholly on window ventilation is wholly impracticable. Artificial humidification was found to serve no useful purpose. Recirculation actually indicated better results in both physical and mental tests. Overheating is the most serious fault of any system now in use.

23. Hallett, E. S. (M. E.), "Mechanical versus Window Ventilation," AMERICAN SCHOOL BOARD JOURNAL, 67:46-7, 99-100, 103-4, August, 1923.

Mr. Hallett states in this article that the mechanical system in use in the St. Louis schools is quite successful. The article is an attack on the findings of the New York Commission in favor of window ventilation. He says 90 per cent of the air can be reconditioned after use. It should be 68 deg. F., 45 per cent relative humidity and move about 40 ft. per minute. The air washer is an indispensable part of ventilation. Sulphur vapors and other gases are soluble in water. He claims for ozone that it increases the weight of the children. He says the mechanical systems in use in the New York study were poor systems. Only one had an air washer. He mentions the Detroit study to show that window ventilation is unsatisfactory. He shows that the St. Louis system is not expensive and says that the last argument against mechanical ventilation is destroyed. He claims for the St. Louis schools that they are better than the open-air schools for anemic children.

24. Holmes, Warren S., "Notes on Schoolroom Ventilation," AMERICAN SCHOOL BOARD JOURNAL, 68:59-60, 125, April, 1924.

In 1924, J. N. McCall, engineer of the Detroit Board of Education said of every 100 tons of coal 75 went for ventilation and 25 went for heating in a ventilating system providing 30 C.F.M. per pupil. Carbon-dioxide content has very little or nothing to do with its fitness for breathing. The important factors are air movement, humidity, temperature. Detroit saves half by reducing air supply to 15 C.F.M. There should be three small 12 by 20-in. inlets on the same side of room near the ceiling. Three exhaust outlets 13 by 13 in.

Air should come in fast enough (300 to 350 feet per m.) to go across against windows, fall, and return. Vents are near floor in wardrobes. Area of outlets should be greater than inlets.

25. Howatt, John, "Heating and Ventilation of Chicago Schools," AMERICAN SCHOOL BOARD JOURNAL, 67: 37-39, 123, October, 1923.

After describing the types of boilers in use, Mr. Howatt discusses the need of the subcorridor system to eliminate the horizontal air ducts. Vertical supply ducts are used which do not permit the collection of dust.

The article contains a rather detailed description of the ventilating system in use and tables concerning heating and ventilating costs.

26. Howatt, John, "Temperature and Humidity in Our Classrooms," *Chicago Schools Journal*, 4:282-88, April, 1922.

This is an excellent discussion of the physiological basis of heating and ventilation. "The body requires an air supply of 20 C.F.H.," but he explains that this is not adequate for body comfort. The heat given off by an ordinary adult is 450 B.T.U.H. or about as much as from 2 sq. ft. of radiator surface. This heat must be dissipated as fast as generated, for health 3 per cent is used in warming the air in the lungs, 7 per cent in evaporating moisture in air passages and lung tissues. Normally, most of the remaining 90 per cent must be taken care of by evaporation on the surface of the skin. This makes air motion necessary. Outdoor air at 20 deg. with 50 per cent r. h. (6 gr. c. f.) when raised to 70 deg. will still have its 6 gr. but its r. h. falls to 10 per cent. Graphs are given showing the amounts of humidity desired.

27. Howatt, John, "Heating and Air Conditioning in Hugh Manly Jr. High School, Chicago," *Heating-Piping*, 1:109-14, June, 1929.

This is an excellent description of the ventilating system of this splendid new $2,300,000 junior-high-school building. A "split" system is used. The vertical air ducts are provided with automatic damper controls. The exhaust ducts are connected with the fresh-air intakes for recirculating. Room temperature is kept at 68 to 70 deg. Humidity is kept at 40 per cent.

28. Hutchinson, A. E., "Heating and Ventilating Cleveland Schools," *Heating-Piping*, 1:552, November, 1929.

This is an explanation of the present heating and ventilating practices in Cleveland. A *split* system is used, direct radiation for wall losses and infiltration, indirect to take care of air changes and comply with the code (6 changes per hour). There is a central supply fan system drawing air from the roof. The Chicago sanitary horizontal supply duct is used. The exhaust duct also goes to the roof and can be connected with the intake duct for recirculation. He says he has never found this being done except for "heating up" in the morning. The velocity is set at 325 ft. and no drafts are experienced. As yet, no air washers are used.

29. Ingels, M., "Why Mechanical Ventilation in Schools is Under Fire," *Heating and Ventilating*, 26:62-4, March, 1929.

All of the "mechanical" rooms of the Syracuse study were *split*. Thermostats fail to work because of clogged needle valves or leaky diaphragms, temperature often 80 deg., then teacher demands more than 68 deg., then opens window for "ventilation." Drafts are created or rooms become *smelly*. Duct thermostats (which control the temperature of incoming air) must be set up or down according to outside temperature. Janitors cannot be expected to work this out. Frequently janitors do not use the mechanical ventilating system or at least at the lowest speed possible.

Janitors who use the system usually set the room thermostats to please the teacher, run the fans as recommended in preliminary tests, guess at what point to set duct thermostats, slow down fans or set up duct thermostats if teachers complain of *draft*.

Engineers should have operating instruction.

30. Keller, Paul G. W., "The Unit System of Ventilation," AMERICAN SCHOOL BOARD JOURNAL, 74:38, 144, February, 1927.

This is a description and discussion of the new senior high school of Eau Claire, Wis. The auditorium and gymnasium are ventilated by two separate units. The auditorium by a large fan in the tower, and the gymnasium, locker rooms and showers by six units attached to the side walls of the gymnasium. Each recitation room has its own unit. Air for the auditorium is taken from a point above the roof and is heated by a large coil unit and sent through metal conduits over the auditorium ceiling, enters through grills in the ceiling (several), and is pumped out under the stage. Air for the gymnasium is taken from a light well and driven out through six grills in the dressing rooms. In each room the air is drawn into a room from outdoors and heated by coils in each unit. There is another heat radiator in each room. The pressure forces the air out into the corridors through grills in the door and passes out through the lower part of built-in lockers.

(Continued in April)

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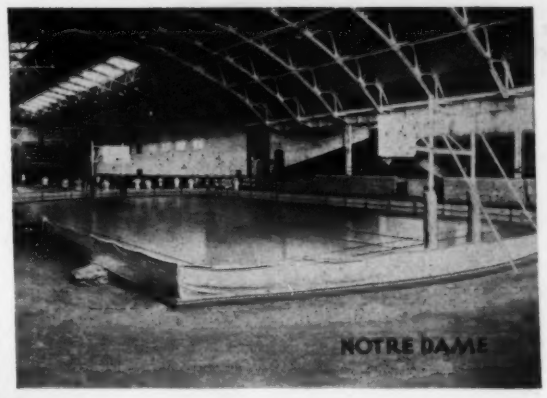

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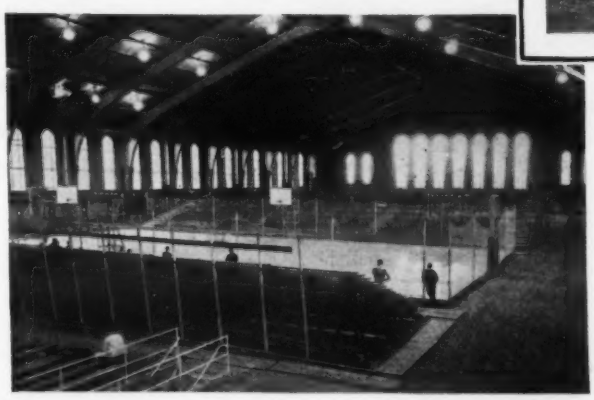

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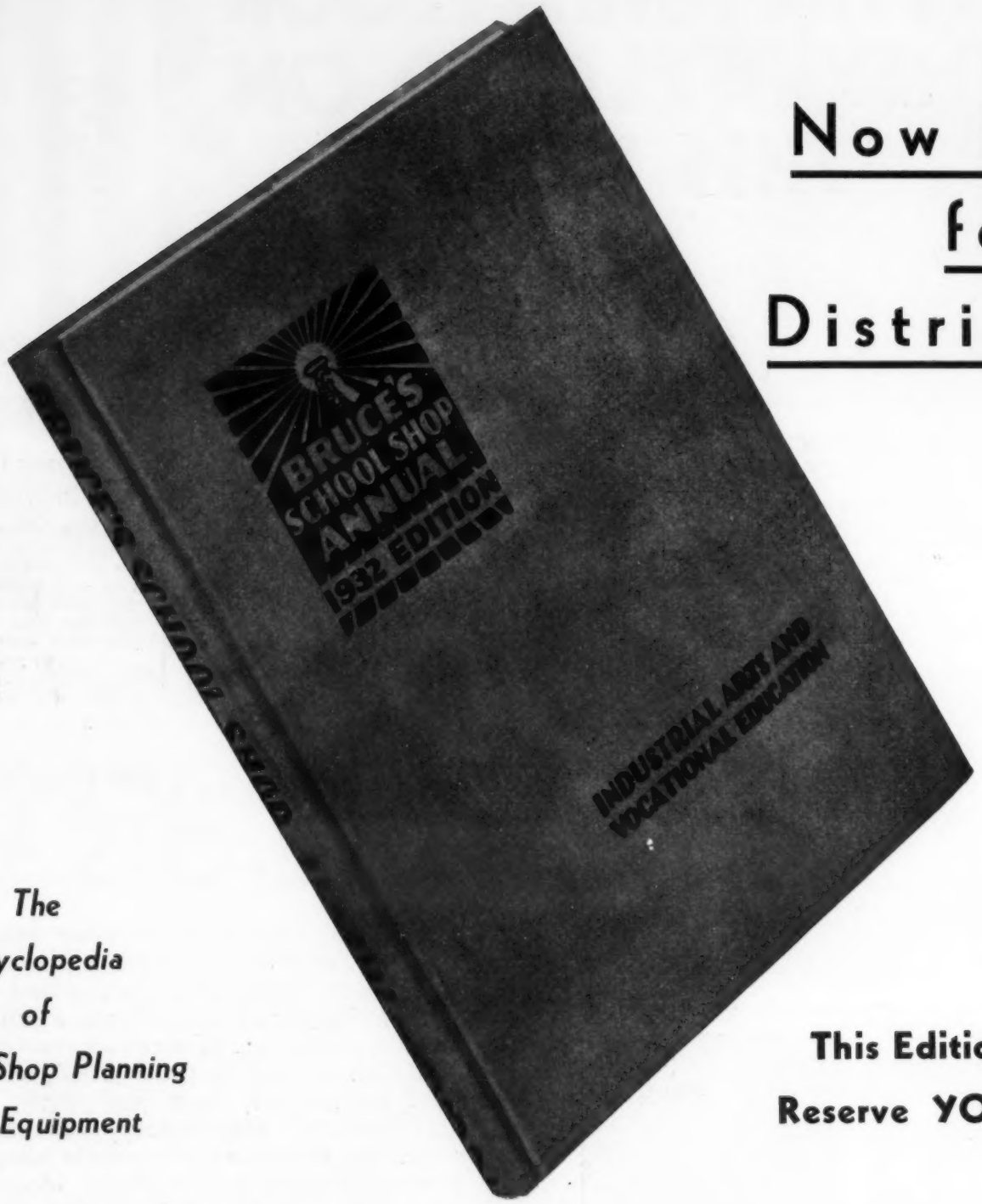

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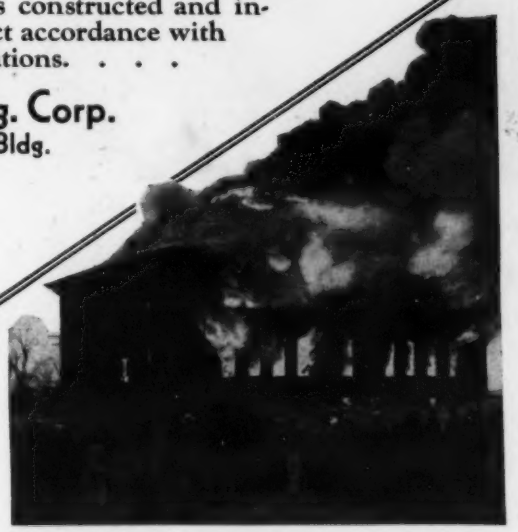

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(Continued from Page 43)

cloth is a light buff, thus harmonizing with wall finishes and also providing an excellent light-reflecting surface for night use.

Indirect lighting is used in the auditorium.

A Unit-Split Ventilating System

The type of heating and ventilating system installed in this building might be designated as the "unit-split system." Being based on extensive and conclusive tests during the past three years, it has been proved to be the most economical type yet tried in Salt Lake City, both as regards first cost and the cost of operation. It is also the simplest, most flexible, and most easily controlled system in operation in any school building in this territory.

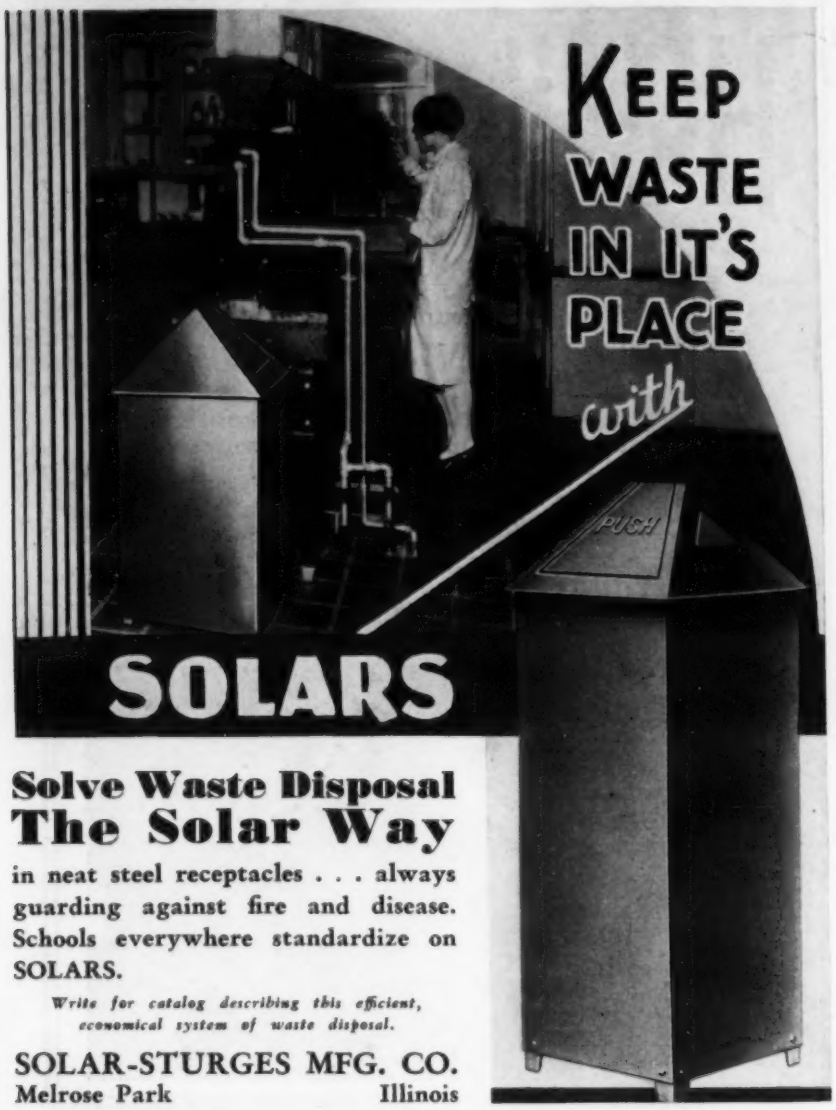
Each classroom is provided with direct radiation of sufficient size to take care of heat losses through walls, windows, etc., and a unit ventilator to provide the necessary air supply. The unit is located under the center window and is of sufficient capacity to furnish 30 cubic feet of air per minute per pupil and to heat this air from zero to 80 degrees.

Each unit has been constructed without by-pass or mixing dampers, thus requiring that all of the air delivered must pass through its radiator at all times. The unit is then automatically controlled so that the temperature of its outlet air will never be higher than about 100 degrees and never lower than about 65 degrees, or other minimum set. As a result, stratification of the air in the room, with the possibility of cold floors and drafts so common to most unit systems, is eliminated.

As an added refinement, each unit ventilator is equipped with a supplemental relay switch connected to a low-voltage circuit, and contact switches on each window, in such a way that as soon as any window in a room is opened as much as a quarter of an inch or more, the unit ventilator stops. Where in other schools the teachers are asked to keep windows closed whenever the heating and ventilating system is operating, at the South High School they are urged to use window ventilation whenever possible, and especially during mild weather in spring and fall. The resultant savings in fuel and power pay big dividends on the small initial outlay for this simple equipment, and without any loss in comfort.

The temperature-control system is of the dual type, making a very flexible system, especially for night service when only parts of the building are used.

MUSIC ROOM, SOUTH HIGH SCHOOL, SALT LAKE CITY, UTAH
Scott & Welch, and the Department of Buildings and Grounds of the Board of Education, Architects, Salt Lake City, Utah.



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There are a number of other special features incorporated in the building which aid materially in the utility of the plant.

At a number of places along corridors, wherever space permitted, a concealed waste-paper receptacle was constructed, spring-hinged doors allowing paper to be deposited from either the room or the corridor side. An access door on the corridor side permits the janitor to remove the can when necessary.

Due to the heating plant being located in a remote building, an incinerator has been provided below the first floor at about the center of the building. A fireproof chute connects from the storage compartment at the incinerator to the levels above.

The auditorium stage is equipped with a flexible cyclorama system by which settings of practically any shape or size may be had at will. Furthermore, each piece is reversible so that either a dark or a light background may be had.

Shower rooms are equipped with push-button controlled shower valves which automatically close at the end of any set time interval. The water is premixed to maintain the proper temperature. This system not only greatly simplifies the plumbing, but also prevents the possibility of showers being left running, thereby effecting a very considerable saving in hot water.

Effect of Project on Local Business

Coming at a time of business depression and of comparative inactivity in the building industry, the construction of the South High School amounted to a veritable godsend for the community. Within a period of about a year, the quantity of work provided at the site amounted to 46,879 man days with an additional 31,178 man days of work provided locally in the manufacture and fabrication of materials before arrival at the site.

The payroll made possible by this total of 78,057 man days of work amounted to $423,-231, or is equivalent to the employment of 278 men for every working day of a year at an average rate of $5.42 per man day. Based on the statement of labor statisticians that the payroll dollar turns over an average of six times a year, the money spent for labor for the South High School project represented a total of about $2,500,000 in business to local merchants during a year's time.

COST DATA

Main Building	
General construction	$594,920.97
Plumbing, heating, and ventilating	138,792.69
Electrical work	40,091.05
Construction cost	$773,804.71
Architecture and supervision	38,838.73
Furniture and equipment (part estimated)	80,000.00
Total cost	$892,643.44
Volume of building	3,414,100 Cu. Ft.
Gross floor area	177,600 Sq. Ft.
Total cost per cubic foot	$0.261
Total cost per gross square foot	$5.02
Additional Sites and grounds improvements	$65,116.56
New Heating Plant for South High and Whittier Schools	$63,638.10
Total Expenditure for entire project	$1,021,398.10

PERSONAL NEWS

♦ Supt. Hugh R. Hick, of Cambridge, Ohio, has been reëlected for a new term of five years, at his present salary of $5,000 per year.

♦ Supt. D. M. Craig, of Lamar, Colo., has been reëlected.

♦ Supt. Allen P. Burkhardt, of Norfolk, Nebr., has been reëlected for a new three-year term, with a salary of $3,400, $3,600, and $3,800.

♦ The school board of Chicopee, Mass., has reorganized for the year 1932, with the reëlection of Dr. S. E. Fletcher as chairman, Mr. W. F. Gacek as vice-chairman, and Dr. J. H. C. Gallagher as representative for the city government. Mr. J. J. Desmond, superintendent of schools, serves as secretary. The school board elected Mr. J. D. Casey and Mr. Sebastian Kordas as new members for terms of three years each.

♦ Mr. A. A. Neverth, of Roseville, Mich., has resigned as head of the school system.

♦ Supt. W. R. Rykken, of Dodge Center, Minn., has been reëlected for a second term.

♦ Supt. C. R. Reed, of Minneapolis, Minn., has been reëlected for another three-year term, at his present salary of $10,000 a year.

♦ Leonard L. Main has been elected superintendent of schools for Portsmouth and Middleton, R. I.

♦ Supt. F. W. Graff, of Laurel, Mont., has been reëlected for a two-year term.

♦ Supt. W. J. Shirley, of Havre, Mont., has been reëlected for a three-year term.

♦ Supt. S. J. Hansen, of Benson, Minn., has been reëlected for the next school year.

♦ Mr. Worcester Warren, of Bridgeport, Conn., has been reëlected as superintendent of schools for three years, and Mr. John A. Young as assistant superintendent for three years.

♦ Supt. J. L. Haug, of Blooming Prairie, Minn., has been reëlected for another year.

♦ Supt. H. W. Saxe, of New Canaan, Conn., has resigned as head of the school system and will become superintendent emeritus at the close of the present school year. Mr. Harry W. Blake, formerly principal of the junior and senior high school, has been elected superintendent to succeed Mr. Saxe.

♦ Mr. N. J. Lasher, of Seymour, Ind., has been named a member of the executive committee of the Indiana Town and Superintendents' Association.

♦ Supt. O. E. Knudtson, of Pipestone, Minn., has been reëlected for a second term.

♦ Supt. H. F. Steele, of Jackson, Mich., has been reëlected for a new term of three years, at a salary of $7,500.

♦ Supt. D. C. Clarke, of Bonner Springs, Kans., has been reëlected for another year, at the same salary.

♦ Supt. O. H. Thomas, of Osage, Kans., has been reëlected for another year.

♦ Supt. F. L. Smart, of Davenport, Iowa, will complete a half century of public-school work this spring. Mr. Smart was elected superintendent of schools in 1907 and more than half of his 50 years of school work have been spent in Davenport.

♦ Supt. G. E. Brown, of Ocean City, N. J., has been reëlected for a new term of three years, at the same salary.

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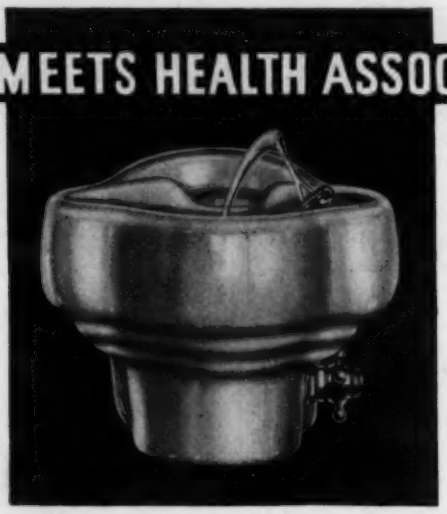

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JEFFERSON COUNTY LEADS IN BUS TRANSPORTATION

(Concluded from Page 32)

have been treated already in this article:

1. Standardizing on a single type of vehicle.
2. Concentrating executive control of the fleet in the hands of the board rather than permitting individual schools to direct operation of the particular busses serving them.
3. Adopting a unified plan of inspection and maintenance from the central headquarters.

As do most county boards, school-bus drivers in Jefferson county are given careful training in safety methods. Jefferson county first started school transportation in 1922, and since that time thousands of children have been transported without serious accident and without maiming a single child. Only on rare occasions are any of the pupils late for school. This record is considered all the more remarkable due to the fact that it was made in a section which is said to have more railroad crossings at grades than any other school operation in the United States. The busses cross and recross 51 grade crossings in the county and many of these crossings have long records of fatal accidents.

This safety operation is ascribed chiefly to the fact that each driver must stop at every crossing while a "captain" chosen from among the pupils goes ahead and gives the clear signal. The busses are all closed so that children cannot stick out their hands or jump out of the bus in any manner. They can only enter and disembark by the side of the driver.

As an institute for teachers is held prior to the opening of school, so an "institute" is held for drivers also. They are instructed in elementary principles of chauffeuring, but particular stress is laid on safe operation. They are addressed by school officials and by officials of the local Safety Council. "Safety First" is a cardinal principle in the operation of the busses, and next comes economical operation as far as is compatible with the convenient and comfortable transportation of children to and from their respective schools.

THE REPAIR TRUCK (A REBUILT PASSENGER CAR) WHICH SERVICES BUSES ON THEIR ROUTES WITHOUT THE NECESSITY OF BRINGING THEM INTO THE SHOP. ANY KIND OF A JOB CAN BE DONE BY THE REPAIR CREWS ON THE JOB

GUESSWORK AND TEACHER SELECTION

(Concluded from Page 28)

which proved relatively easy for three lower-grade teachers. These are extreme cases, but it is nevertheless true that some teachers who know relatively little about their work are successful in avoiding detection.

For this reason, while the average city administration depends upon the teacher-training schools to guarantee the candidates' knowledge of content within various fields, some feel justified in giving professional tests. These tests reveal among other things, the teacher's educational outlook, her educational philosophy, her range of professional knowledge, her professional attitudes, and her professional judgment. If the tenure of teachers depends partially upon the extent to which they are sympathetic to certain peculiarities of the system in which they work, such tests should be of distinct aid in deciding whether or not teachers are to be employed.

7. Pupil Achievement

Probably the most important single factor in the selection as well as the retention of teachers is the actual record of achievement made by their pupils. Up to the present time, it has been almost impossible to get such data from most school systems. Many do not give such tests and many who give tests do not analyze their results sufficiently to interpret them. But this situation will not always maintain. As long as we spend more classroom time selecting the pupil's seat and experimenting on floor dressings than in selecting his teacher, we must expect to make many mistakes; but this type of information is essential in an adequate procedure for teacher selection, and the well-trained, modern superintendent will take advantage whenever possible of this additional aid in selecting his teachers.

Fine schools deserve fine plumbing fixtures

Educational institutions are judged not merely by their classroom accomplishments but by their appointments. Not only faculties *but facilities* must be of recognized worth and in keeping with this thought Te-Pe-Co recommends the Penn Blow Out Urinal for Toilet rooms where it is desired to keep all piping above the floor. It affords ample room—measuring 18 inches in width, is cleanly, durable and *cannot be clogged.*

Its flushing rim, large water surface and jet action assure a positive and thorough cleansing of the entire inner surface. The entire trapway being larger than its opening in the bowl will obviously pass anything that enters it. Projecting but 13 inches from the wall it requires little floor space and leaves a clear unobstructed floor that is easy to keep clean.

School Executives and Architects may find many worth-while ideas relative to school sanitation by submitting to our Engineers their specific problems.

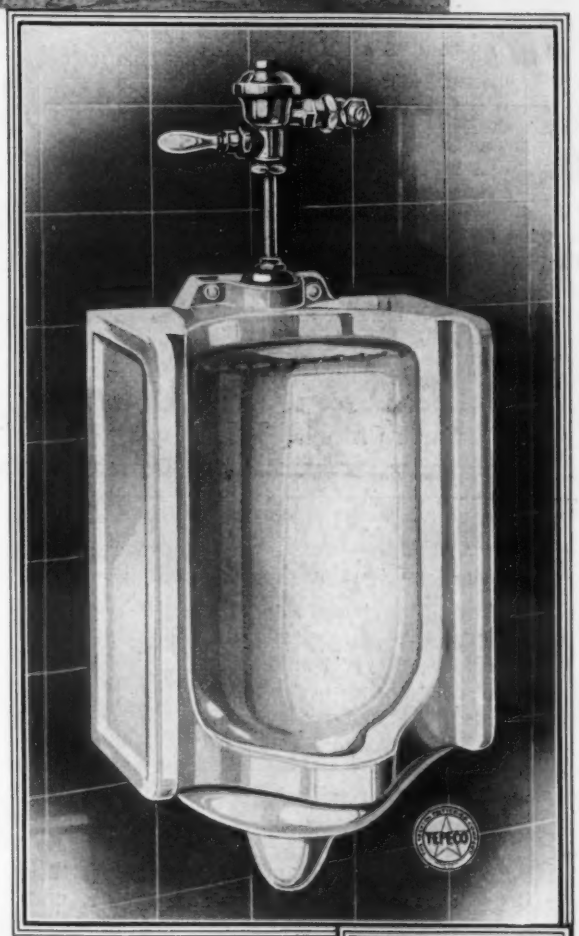
THE TRENTON POTTERIES COMPANY
Trenton, New Jersey, U. S. A.

Showrooms:
New York City, 101 Park Avenue, Entrance on 41st St.
Philadelphia, Architects' Building, 17th & Sansom Sts.
Branch Offices: Boston, Chicago
Export Office: 115 Broad Street, New York City

TE-PE-CO

All Clay Plumbing Fixtures

OUR GUARANTEE . . . *We make but one grade of ware—the best that can be produced—and sell it at reasonable prices. We sell no seconds or culls. Our ware is guaranteed to be equal in quality and durability to any sanitary ware made in the world. The Te-Pe-Co trade mark is found on all goods manufactured by us and is your guarantee that you have received that for which you have paid.*



The Penn Urinal is sold under Catalog No. 6551 T. Projecting only 13 inches from the wall it may be set to any height depending upon the age of the pupils having access to the toilet room.

Why not banish towel waste from your budget?

The towel costs in your budget, while not large items, are constantly recurring. They represent an expense that should, in these days of budget-reduction, be eliminated. Do you realize that the new "SF" SANI-DRI will actually do a faster, finer, more sanitary job of drying in your school washrooms, eliminate towel waste entirely from your budget, *and show a saving of from 60% to 90% over the cost of old-time towel service?* Records in scores of leading schools furnish ample proof of SANI-DRI'S outstanding economy. Send today for a copy of our new booklet. Then

Study SANI-DRI'S 12 Basic Betterments

There are a round dozen of vitally important advantages that distinguish this new "SF" Model. The booklet referred to describes and illustrates these in detail. We believe you will find this information of real value.

Electrical Division
CHICAGO HARDWARE FOUNDRY CO.
North Chicago, Illinois

NOW—it's an improved selective disc for the various sizes of pencils used in American Schools—which makes the ever popular

"GIANT"

BETTER THAN EVER

APSCO AUTOMATIC PENCIL SHARPENERS

have always represented the highest possible QUALITY and we have originated all the worth while improvements in the present models of Pencil Sharpeners for Schools

The deeply undercut APSCO CUTTERS—hollow ground to a razor edge never scrape—They Cut

ASK YOUR DEALER TO DEMONSTRATE

AUTOMATIC PENCIL SHARPENER CO., CHICAGO, ILL.

SCHOOL TRANSPORTATION IN NEW YORK

(Concluded from Page 34)

great, the roads were in bad condition, the place was in the heart of the Adirondacks and it may have been that the driver would have earned his money. But, neither the state nor the school district can afford to spend $1,400 to transport one pupil. The taxpayers must be given some consideration in the matter.

"We are confronted with all types of transportation. We have transportation by automobile, by railroad, by bus line, by motor boat, and the last and not least interesting is the contract which we are called upon to approve for transportation between Alexandria Bay and one of the Thousand Islands where it appears that the river is not frozen all during the winter in the middle but has stretches of ice reaching over to either shore and where a peculiar kind of combination of iceboat and row boat is used and manned by an expert who knows how to travel on ice and water both.

"An automobile is required to carry the pupils the rest of the way on the mainlaind. Eight or ten pupils are involved and the entire cost will probably not exceed $1,400. I do not think there is any state in the Union which is confronted with any more difficult situations or any more variety of conditions than we find in this state and I believe that with full and fair coöperation of the law our transportation problems will be smoothed out, and inside of a few years we will know just what to expect in any given instance."

THE HIGH-SCHOOL PRINCIPAL IN THE ROLE OF SUPERVISOR

(Concluded from Page 31)

matter of course that no promising source will be overlooked: personal experience, literature, interviews with acknowledged authorities either in person or by mail, and the like. After this, principal and teacher will select alternative methods of teaching Latin composition and set the stage for an experiment to be controlled under the law of a single variable.

Right here both the principal and his teachers, respectively, come into their own. Where shall we turn to find a Latin teacher with a trace of knowledge concerning scientific procedure under the law of a single variable? And most of the principals of the writer's acquaintance qualify similarly in regard to the methodology of Latin. So the resources of both are pooled: those of the principal as an educational technologist, and those of the teachers as Latin specialists. Accordingly, on the one hand, the principal will supply requisite information concerning such matters as pretesting and posttesting; the control of variables; the statistical interpretation of resultant data; and the like. On the other hand, the teachers will bring to bear in manifold ways their knowledge of the specifics of Latin and the teaching thereof.

Finally, an undertaking of this magnitude should eventuate in something like a formal report on the whole project. With this before them, the principal and the teachers could select, on the basis of their showings, the more effective method of teaching Latin composition. Thus, after an extended period of concerted effort the question would be answered. It would be answered, too, in a manner far more important for the teachers than the dictum of the principal, "Do it this way," or that, as the case might be.

We insist that such a supervisory approach to problems of teaching will do violence to the self-respect of no one, and, in the terminology of Saunders, will win the respect of the bold, strengthen the timid, and parallel the desires of the democratic groups.

The Principalship: A Professional Goal

And now in conclusion, what more can we say? The complexity of the principal's job is apparent. The variety of demands which he faces is truly amazing. But by this same sign he enjoys unlimited opportunities for leadership. It is apparent that untiring vigilance is one price which the wide-awake principal must pay. Under the ceaseless hammering of the constant demands of his position he learns to command rich sources of information. Additional training extends its appeal. His school becomes a laboratory for the testing of both theory and practice. He is in intimate contact with the raw materials from which educational problems are made. He corresponds much with others to discover ways of doing things. And his teachers benefit through it all.

Is it prophetic that the trend of educational discussion is away from the principalship as a training school for the superintendency? We hear more and more about making it a real profession which will have its own appeal. When that time comes, the principalship will attract that type of individual who experiences the keen joy of succeeding despite tremendous difficulties. Such a one will take up his work secure in the thought that, although the years will accumulate, the challenge of the principalship will keep him forever young. That type of principal will adequately fill the rôle of supervisor.

TWO THINGS WRONG WITH THE LITERATURE OF PUBLIC-SCHOOL ADMINISTRATION

(Continued from Page 40)

the profession are handled by an expert — how they are solved in spite of the hampering circumstances. They must put aside the mistaken notion that establishing principles of organization is the big job in the development of the

(Concluded on Page 102)

For SCHOOLS *....the new* TRADE YALE MARK

COMBINATION PADLOCK

Built and operated like a* YALE *Bank Lock

HERE IS the ideal lock for school use—also for gymnasiums, clubs and other places where group locking facilities are employed. Yale quality and craftsmanship are evident in the construction and operation of this remarkable combination padlock. Designed to provide maximum security and convenience throughout years of service.

NOTE THESE YALE FEATURES

1 Shackle is automatically securely locked when pressed into closed position.

2 Combination is automatically upset by closing the shackle—unnecessary to turn dial after closing.

3 Dial is locked against rotation when padlock is open, thus shackle cannot be locked out.

4 Combination has three *positive* numbers, each of which it is necessary to know and dial to unlock.

5 There are 50,000 possible positive different combinations.

6 1¾-inch case is of heavy, die-cast metal made by a special Yale formula, satin cadmium finish. No rivets—case is interlocked.

7 Shackle is of case-hardened steel, ¼-inch diameter, satin cadmium finish, 13/16-inch clearance.

8 Dial is black with white letters, same as Yale Bank Lock type, easily set and easily read.

9 As with the Yale Bank Lock, the complete dial revolves against the flat surface of the lock; raised indicator at top on body of lock.

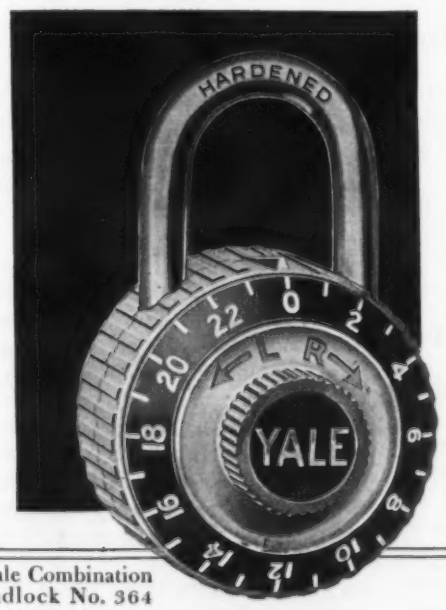
10 Dial knob and sides of lock case are heavily ribbed, permitting firm grip in operating.

RECORD CHARTS FOR QUANTITY USERS

Where Yale Combination Padlocks are used in quantity, a record chart will be provided listing the serial numbers of all padlocks supplied and the combination of each lock. One column will be left blank for the number of the locker or the name of owner to whom each lock is assigned.

NOTE:

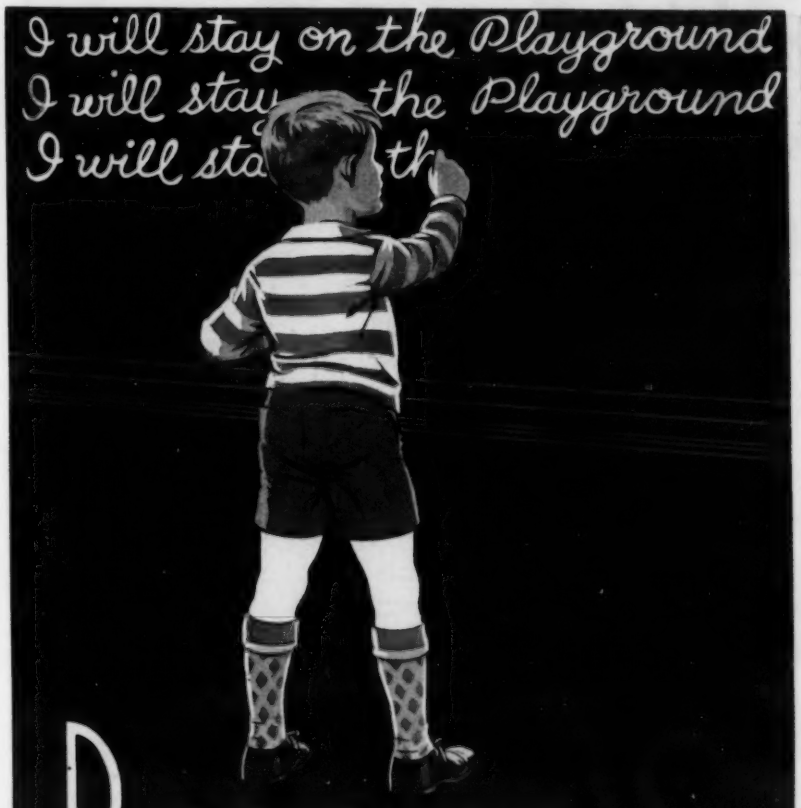
Another new Yale Combination Padlock, No. 374, is furnished with emergency master key (on special order only) for extensive installations.



Yale Combination Padlock No. 364

Write for illustrated folder, quotations etc.

THE YALE & TOWNE MFG. CO.
STAMFORD, CONN., U. S. A.



DISCIPLINE.... WILL NOT STOP THEM

Punishment for lack of memory is unfair to the child. You cannot expect a play-thirsty youngster to remember the "Don'ts" in the heat of play.

Nothing will prevent his darting into the highway except a positive barrier. Anchor Fences have been serving this purpose for forty years around thousands of playgrounds.

Thousands have passed this responsibility to us. Get your information about Anchor protection now.

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"DIAL"

Cut About ½ Actual Size No. 9920

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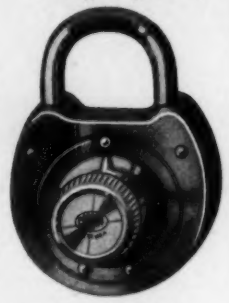
COMBINATION PADLOCKS

Especially Designed For Greater Convenience and Security

Particularly adapted for use on school lockers, gymnasium wire suit baskets, and to meet the requirements of general padlock needs.

"CLICK"
Non-Sight Operation



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Locks Automatically

These locks cannot be left unlocked because the combinations are completely thrown off when the shackles are snapped shut.

Inform us of your particular problem, that a solution of your requirements may be determined.

A sample "Click" or "Dial" padlock will be sent gratis upon request to school executives.

Letter Boxes for Schools Key and Combination

No. 85 COMBINATION LETTER BOX
Made in 3 sizes.
Cast Bronze, regularly finished medium statuary. Dials etched, figures raised on black background. Combinations all different.

No. 1702A KEY LETTER BOX
Cast Bronze, medium statuary finish. Pin tumbler lock. 3 keys with each letter box. Key changes practically unlimited.
Size 5½x6¼ inches.
All boxes furnished with pigeon holes of various depths. Send for catalogue No. 57.

Manufacturers of letter boxes for 50 years.

Size 3-2/3x5 inches.

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SILICATE • NATURAL SLATE

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All Sizes: 18x24 inches and up

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(Concluded from Page 100)

profession. They must be convinced that much of what they have thought at times was stupidity on the part of practical administrators is due to the severe difficulty of the practical application of even well-made plans. It is due to the fact that the formulation of the principles of organization has outrun the development of the principles of operation. They must shift their efforts, therefore, to new objectives at least until operative technique catches up, which will probably not be soon.

Smaller-School Administration Slighted

The second thing that is wrong with a school-administration literature can be more briefly told. It is that the writers on the subject have all but ignored the smaller schools in which most of the members of the profession work. The problems of city-school administration have engaged the attention and absorbed the enthusiasm of these ambitious writers. Their own administrative experience was in smaller places, but they spurn their first spouses and run off with city vampires. They condescend occasionally to offer a suggestion for improving conditions in the smaller places, but such suggestions are regularly feeble, heartless, and devoid of any genuine hope.

There are many figures and facts to prove that the emphasis upon city-school aspects of administration is misplaced. According to the 1930 census, there were 16,598 incorporated communities in the United States. Of these, 14,765, or approximately 89 per cent, were 5,000 or less in population. Practically all of these communities have school heads of some sort with administrative functions. Then, too, there are many sizable schools, consolidated or otherwise, in unincorporated communities and in the open country, that are not included in the figures. If we hope to build a successful profession of school administration we must base it upon conditions that are confronted by more than a mere tenth or less of the administrators concerned. Would it not be better, if all conditions cannot be comprehended, to reverse the situation and write the literature exclusively for the smaller schools. By such a plan we could reach more than nine tenths of the schools, more than nine tenths of the administrators, and probably ninety-nine hundredths of the beginners in the profession. The other alternative would be to divide the field and write the literature of city-school administration separately. In that case the present literature should be changed in name from *public* school administration to *city* school administration for the cities are not privileged to run off with the general title. For reasons which are obvious, however, this is not a practical alternative.

Another thing to do is to cease attempting to energize the young administrators in smaller schools by holding out to them the hope of obtaining city positions in time. Certainly the nine in places of 5,000 or smaller cannot hope to get the job of the one in a larger place. If they stay in the profession at all, they must stay in smaller places. We cannot build a successful profession unless those who enter it stay in it reasonably well. Neither can we build a happy profession if eight out of nine go through life disappointed because they do not get city superintendencies. We must concentrate upon the development of a competent and also contented profession as a whole regardless of the size of place in which it is practiced. We cannot do this by basing the literature of the profession upon city conditions. Neither can we do it by holding out to the ambitious ones some false hope. If smaller schools come in for their share of consideration in the literature, conditions in them can be improved to the point where more able men will find them happy and profitable places to make a career.

AGING QUALITIES OF PAPER TOWELS

The United States Bureau of Standards has recently completed a study of the aging qualities of paper towels. A similar study was made by the Bureau in 1925 because it was felt at that time that paper towels rapidly lose their qualities of absorptiveness. The new study, as reported in the *Technical News Bulletin* of the Bureau, indicates that aging has a distinct effect in reducing the power of paper toweling to absorb moisture from the human skin..

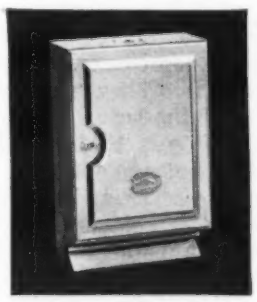
The recent study was carried on by an accelerated aging test which involved the heating of the towels and was found to be reliable for determining the retention of absorptive qualities during long periods of storage. As in 1925, the inquiry was made at the request of a government department which found that towels were unsatisfactory after they had been stored several months. These towels had been made in accordance with the specifications prepared by the Bureau of Standards and had been properly stored.

Thirty samples representative of the best current commercial products and newly manufactured were tested when received and retested at the end of each month for a period of six months. The changes in the properties of the towels under normal storage conditions were then compared with those which had occurred when the towels were baked at varying periods of time at 100 deg. C. The strength of the towels, as measured by the tensile breaking test, remained quite constant during storage. The towels which best retained their absorptiveness were those which had a low rosin content and which were low in acidity. In each case the best towels were those which had long, clean fibers. There was no constant relation as between the loss of absorptiveness and

(Concluded on Page 104)

Where CHILDREN'S HEALTH is at STAKE—

Serious consequences may result from the use of harsh, insanitary toilet papers in the school washrooms. Inferior toilet papers are always dangerous. Make sure of the toilet tissue that goes into your washrooms. Install A. P. W. Onliwon Tissue. Soft, yet strong. Smooth, absorbent and hygienically pure, Onliwon Tissue is just what your youngsters should have. Affords them a certain protection against troubles that may be caused by ordinary toilet papers. Dispensed from sanitary Onliwon cabinets, two sheets at a time, A. P. W. Onliwon Tissue is safeguarded against dirt and dust, as well as indiscriminate and wasteful handling.



Onliwon Chromium Finish Cabinet for Toilet Tissue

Pioneers for Cleanliness since 1877

A.P.W.

TRADE-MARK REGISTERED IN U. S. PATENT OFFICE

A. P. W. PAPER CO., Albany, N. Y. ASB-3-32

Please send me, free, material checked below:

☐ A sample package of A. P. W. Onliwon Tissue
☐ Booklet—The Most Profitable Investment

Name..... *Address*.....

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More Than a Bubbler

. . . Every Drink is a Sanitary One

Everywhere, in public buildings, parks and wherever people gather, the drinking fountain is the common meeting place. Therefore, consideration should be given the type of fountain. Remember it is humanly economical to install the Rundle-Spence . . . . the fountain with unusual sanitary advantages.

The R-S Vertico-Slant fountain design makes it impossible for the user to touch his or her lips to the nozzle. Water spouts slantingly from jet to mouth, the excess falling into the bowl and not on the jet. Only the R-S fountains have Vertico-Slant health guarding features.
Send for catalog.

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What happens to the keys?

LEARN ABOUT TELKEE

The building is completed « » the keys are handed over, and then «» how are they cared for? Must you work out your own salvation?

Knowledge of what the TelKee System accomplishes for the proper care of keys in schools «» large or small «» will convince you that TelKee is needed wherever locks are used. Write for literature.

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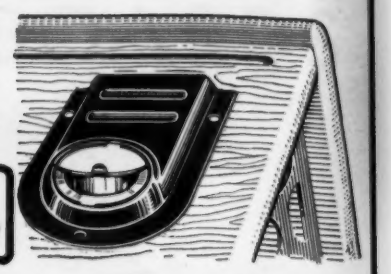
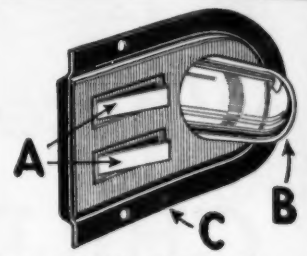
US INKWELL



Wins the approval of school authorities everywhere for a replacement well. It costs less. It "stays put" and cannot be damaged easily. It has no equal for durability. Ink spilling and "tinkering" is practically eliminated at desks fitted with U. S. Inkwells. Its dust-proof and air-tight construction also stops the trouble of ink drying. Teachers recommend it because of its noiseless operation.

Easy to Install

The ease with which U. S. Inkwells are installed in any type of school desk make them the outstanding favorite for replacement purposes. Anyone capable of handling a screw driver can put in U. S. Inkwells without trouble.



A. Flat Steel springs (resting on desk) force well into air tight contact with lid.

B. Heavy Glass Inkwell — Easily cleaned — Round bottom — Pupil cannot set on desk.

C. Heavy Black japanned Steel Frame.

Strongest

The lid slides shut—making well air tight. Three screws attach well to the desk. Raised penholders in the steel frame increase convenience and strength.

JOBBERS

Most school supply jobbers carry U. S. INKWELLS. Free sample of either Junior or Senior well sent free to school executives.

AGENTS

Men or women to demonstrate U. S. Inkwells. Full or part time. Special commission proposition to teachers.

U. S. INKWELL CO. 410 S. W. 9th St. Des Moines, Iowa

(Concluded from Page 102)

the species of fiber or the degree of purification. It was found that towels baked for one hour at 100 deg. C. represented practically the same amount of deterioration as those which had been stored in the usual way for a period of six months.

A comparison of the recent test with those made in 1925 would indicate that the towels now manufactured are heavier and smaller in size and that they have distinctly better absorptive qualities.

The tests should be of interest to boards of education because they indicate very clearly a simple method of testing the lasting qualities of towels in the ordinary school laboratory or school-board office laboratory.

THE EFFECT OF SUPERVISION ON THE RURAL-SCHOOL BUDGET

O. L. Emerick, Division Superintendent of Loudoun County, Purcellville, Virginia

Virginia began its program of special aid to counties for rural-school supervision in 1918–19. In 1920–21 there were 44 supervisors in 30 counties; in 1926–27 there were 22 supervisors in 17 counties; and in 1928–29 43 supervisors in 31 counties. For the current session there are 59 rural supervisors in 47 counties. The plan of state aid to counties provides that each county shall appropriate $200 for traveling allowance and bear one third of the additional cost of the salary and travel. The plan has worked satisfactorily and will be continued as the fixed policy of the state.

In making up the budget, each superintendent must determine whether he will include special supervision, how many supervisors are to be employed, and what the salaries will be. The superintendent should also include a certain amount for supervision in the budget. It is suggested that one supervisor be provided for each 50 elementary teachers or major fraction thereof. The salary and travel allowance depend on the qualifications of the person employed and upon the salaries paid to teachers in the particular counties. Some attention should be given to the salary range in the state and it is suggested that the net salary be compared with that of principals in the larger schools.

After the superintendent has made special supervision a part of his program, he must convince the school board and be prepared to defend the item before the board of supervisors. Two points must be stressed, namely, the low net cost, and whether supervision of the special type pays for itself. It is sometimes necessary to show why the superintendent does not, or cannot do the work.

The director of research for the Virginia state education department found that in counties with special supervision, the rate of progress of the children was 11 per cent more rapid in 1929–30 than in counties without supervision. Dr. Pittman, of South Dakota, reported that pupils in supervised schools achieved 94 per cent more than those in unsupervised schools.

NEW SOURCES OF REVENUE FOR INDIANA SCHOOLS

The State of Indiana is enjoying a new source of revenue for the schools, as a result of a decision of the United States Supreme Court rendered in May, 1931. To understand the educational significance of the decision which established the constitutionality of the so-called chain-store tax act of Indiana, it is necessary to know that the funds derived from this source are applied largely to a state school fund intended to relieve local counties of the increased burden of school costs.

Since 1901, Indiana has passed a series of laws all intended to aid the towns and townships in better financing the schools. The so-called chain-store law passed in 1929, provided for the licensing by the state board of tax commissioners of individuals and firms maintaining stores in the state. An important part of the funds so derived were to be applied to state school revenue. The law provided an annual license fee for all stores, and an appreciably increased fee for additional stores operated by one owner. The law was immediately fought on the basis that it is a violation of the fourteenth amendment of the United States Constitution, in that it deprives owners of property without due process of law and denies them equal protection of the law. The law was also attacked because it was held that it violates the state constitution and does not provide a uniform rate of assessment and taxation.

The Indiana courts held the law to be unconstitutional, unreasonable and arbitrary, and an unfair occupational tax. The decision, when appealed to the United States Supreme Court, was reversed and the law was held constitutional. The majority opinion held that it does not deny equal protection of the law and that whatever discrimination may exist is founded upon a reasonable distinction. The court further held that it is within the discrimination of the legislature to classify trades and occupations and to subject them to special forms of regulation for taxation. Four justices dissented.

Under the law, the state fund for education in Indiana amounts to $250,000 in 1929 and interest to the date of the decision; $550,000 in 1930 and interest; $500,000 in 1931; and $300,000 a year thereafter.

Indiana people believe that the law demonstrates the principle that the states may make laws for what the people believe to be their best interests.

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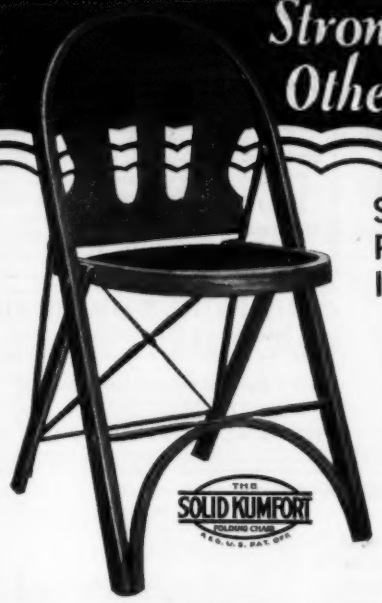

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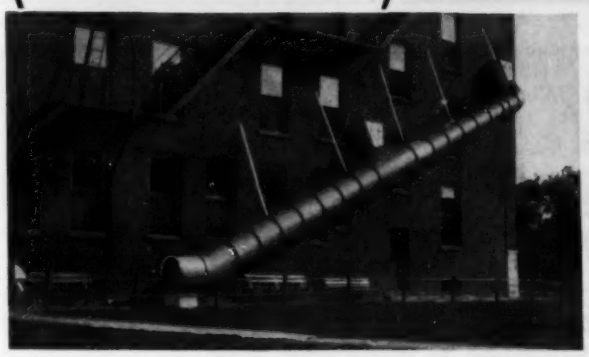
INSURE THE UTMOST SAFETY AND COMFORT FOR SCHOOL CHILDREN

BUTLER SPIRAL AND TUBULAR FIRE ESCAPES



Fire insurance policies are invariably taken on school buildings of the most thoroughly modern fireproof construction. Why? Because everyone knows and recognizes that the possibility of fire always exists. As long as there is a possibility of fire loss there is also the risk of the far more tragic loss of life—if not from fire itself then from smoke, gases and worst of all PANIC.

It is of much greater importance to insure against loss of life than against damage to or loss of buildings. These can be repaired or replaced. Who can restore a life?

Above all else insure the utmost safety to your school children. Install escapeways that facilitate quick, sure, safe rescue. Butler Spiral and Tubular Fire Escapes are the most highly developed of this type. Their quick-acting, easy to use, patented panic-proof entrance doors are located on floor level and pass through outside walls. Their fully-enclosed slides receive and discharge children at the rate of 120 per minute protected all the way from fire, smoke, gases, snow and ice. No panic-inciting slowness. No stumbling, falling, piling up or crushing.

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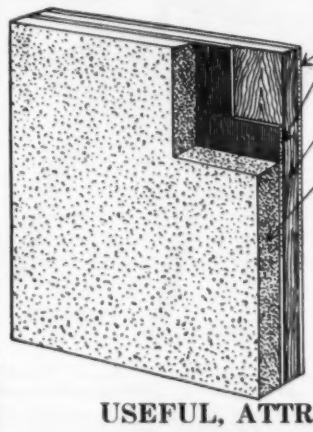

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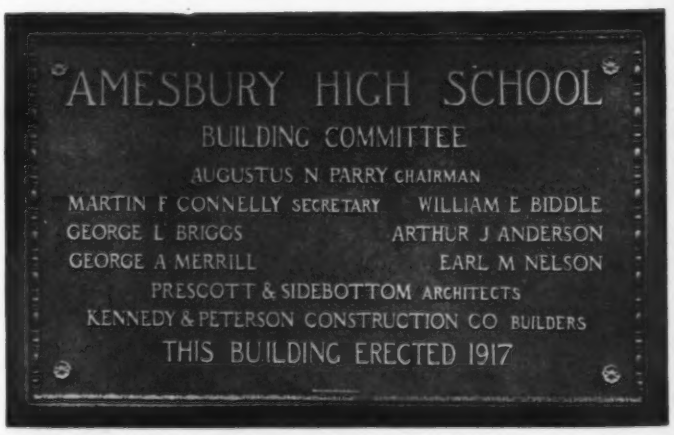

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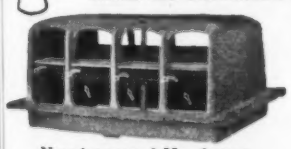

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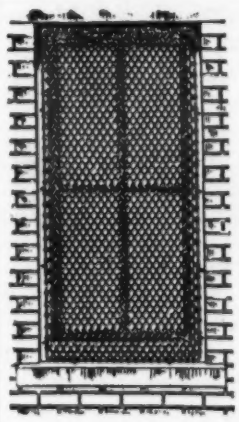

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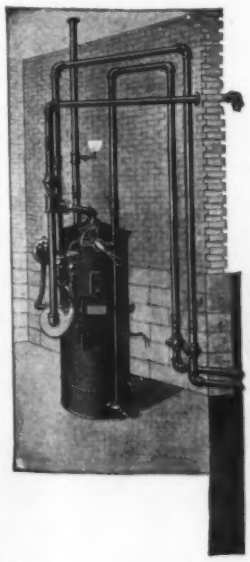

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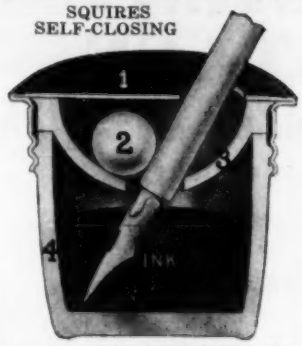

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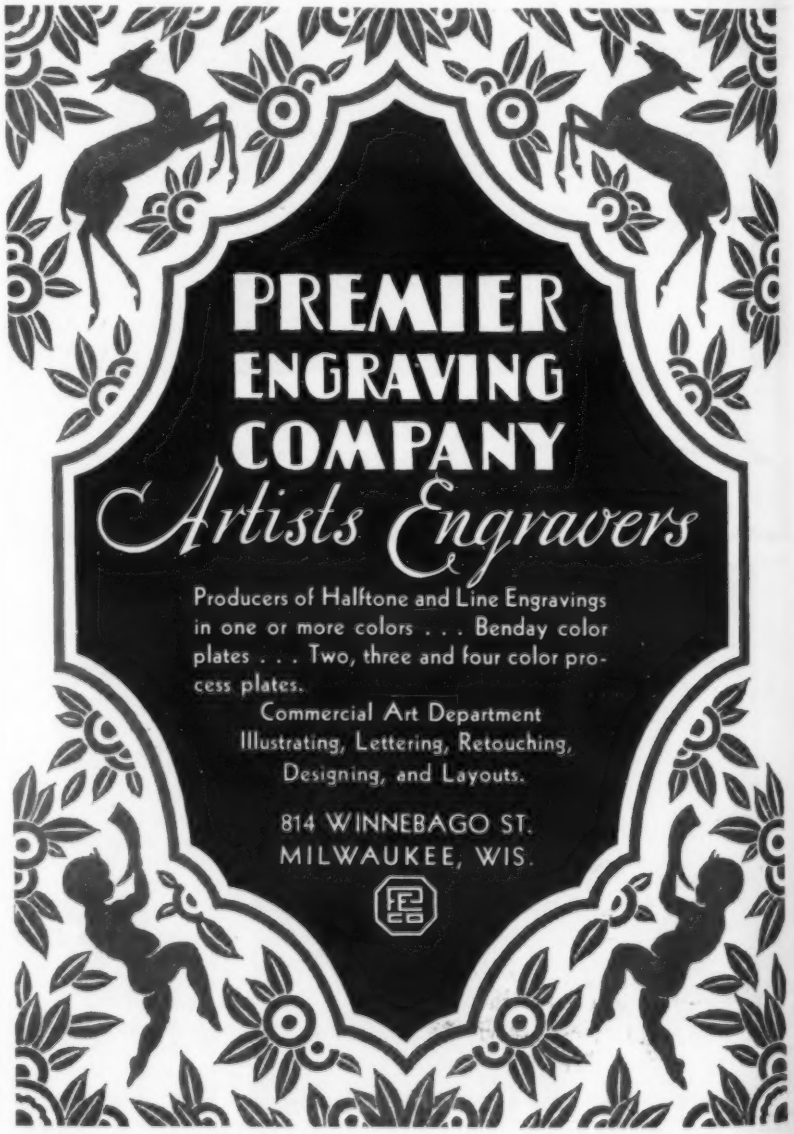
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MANUAL TRAINING BENCH No. 280

A GLANCE AT THIS NEW PATTERN will show that the combination of various-sized drawers and cupboard makes an unusually practical bench. Notice, especially, the small drawer which is intended to hold nails, screws, small tools, etc., which so easily become misplaced when kept with the larger tools. Being able to immediately lay hands on these small but necessary items, will be the means of saving a great deal of time, thereby promoting efficiency. Also, notice the large cupboard, which will hold such tools and materials which cannot be kept in the general or three private drawers. Bench is equipped with our Abernathy Rapid Acting Roller Nut Vise No. 70D on front, adjustable stop and dog.

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Manufacturer of this line since 1898

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After the Meeting

IRRESISTIBLE FORCES

Dr. J. N. Rule, state superintendent of public instruction for Pennsylvania, recently illustrated the inevitability of advance in education and the folly of attempting to stop changes and improvements which the people demand. He related that during an American Legion Convention, an old lady became alarmed at the antics of the Legionnaires and complained indignantly to the policeman at the street corner.

"Officer, you must stop them."

"Sorry, madam," said the cop, "an old man in Germany tried that, and now he's sawing wood in Holland."

Were They Lamblike?
LIONS WILL FEED
TEACHERS ABOUT
TO QUIT SCHOOLS
—Caption in Dayton (O.) Journal.

A British Idea of American Slang

An Englishman had returned from the States with a Yankee wife. On the day of the medical inspection at school, the wife attended to seek advice about one of her offspring.

His Majesty's School Inspector, very short-sighted, also visited school that day. He had occasion to pass the assembly of mothers several times, and as he did so he peered at our Yankee lady, and at the very ugly baby she held in her arms. At last, not liking this inquisitiveness, which she had referred to in Yankee slang as "Rubber-necking," she exclaimed to the inspector, "Rubber!"

"Thank heaven, ma'am," was his reply, "I thought it was real!"—London Teachers World.

ENGLISH AS SHE IS WROTE

Teachers grow gray because they must contend with so many queer things which children say and do. The following definitions and statements are taken from an old collection of genuine examination questions collected in the "eighties" by Caroline B. LeRow:

Beneficence — a state of insanity.
Equestrian — an equal.
Espionage — a kind of cabbage.
Omnious — power to eat all things.
Every sentence must begin with a caterpillar.
A verb is something to eat.
A quotation is asking a question.
Prose tells things just as they are, and poetry makes it up as you go along.
A vulgar fraction has one fraction over the line and one under it.
Parallel lines are lines that cannot meet until they run together.
Amireca is in the torade zone.
The capital of the United States is Long Island.
New York was called the Emperor state because it once had an Emperor.

WELL, YOU TRY IT

Teacher: "Johnny, I want you to give me a sentence employing 'piquancy.'"

Johnny (after a moment's thought): "Ma asked me this morning if pa was awake yet, an' I said, 'I'll take a peek an' see.'"

Buyers' News

TRADE NEWS

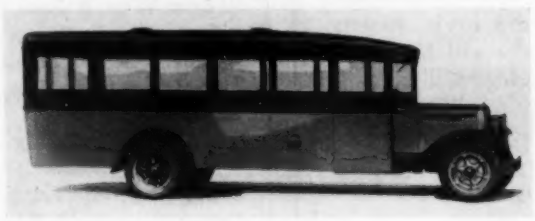
Change in Firm Name. Mr. Earle S. Irwin, president of The Steel Furniture Company, Grand Rapids, Mich., has announced a change in the name of the company to The Irwin Seating Company.

The change in name does not involve any change in ownership, management, or capital structure of the organization. It was made for the purpose of obtaining a name to indicate the business of the firm, and one which is less liable to cause confusion.

TRADE PRODUCTS

New Dodge School Bus. The new Dodge built-for-the-purpose school bus, manufactured by the Dodge Brothers Corporation, Detroit, Mich., is being widely used in all sections of the country.

The Model 185, one of four comprising the Dodge line of school busses, was displayed in the Washington Auditorium, Washington, D. C., during the convention of the Department of Superintendence from February 20 to 25. The bus seats comfortably from 30 to 56 pupils, depending upon the style of seating arrangement, and is substantial and low in price.

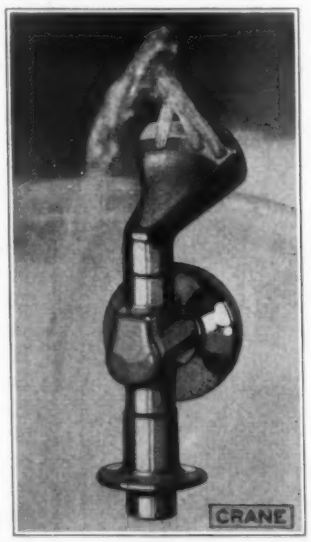


THE NEW DODGE SCHOOL BUS

Complete information will be supplied to any school official.

New Crane Sanitary Bubbler for Schools. The new Newera three-stream angle bubbler, just placed on the market by the Crane Company, Chicago, Ill., is considered the newest and most sanitary bubbler for school use.

The Crane Newera three-stream angle bubbler has been devised as the result of numerous tests to determine its sanitary qualities. It is equipped with an automatic stream regulator for maintaining a constant-height drinking stream under varying water pressures. The drinking stream, which comes from three supply jets, is diverted away from the jets, so that saliva from the lips of the user will descend into the fountain receptor instead of into the jet openings. An integral shield prevents foreign matter from getting into these openings and keeps the user's lips from coming into contact with the rim of the receptor. The bubbler is economical in the use of water, and the round, sloping design and absence of crevices permits easy cleaning. Complete information will be furnished any school official upon request.



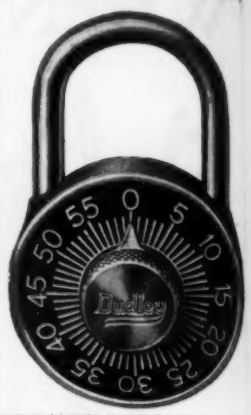
NEW CRANE BUBBLER

New Optical System for Victor Projector. The Victor Animatograph Company, Davenport, Iowa, has announced a new optical system for use in the Victor 16-mm. projectors.

The new system is to be known as the Hi-power system and makes possible the projection of 16-mm. films for throws of 100 ft. or more. This will enable school authorities to use small film in a variety of new ways and in large auditoriums, assembly halls, etc.

Official Washington Film. The Eastman Kodak Company, Rochester, N. Y., recently announced the completion of an official motion-picture film, depicting the life of George Washington. The film emphasizes the main features in the life of Washington which reveal his character and reflect the conditions and spirit of the time. It consists of four reels dealing with Conquering the Wilderness, Uniting the Colonies, Winning Independence, and Building the Nation.

New Dudley Combination Locks for Schools. The Dudley Lock Corporation, 26 North Franklin St., Chicago, Ill., has announced two new combination padlocks, the "Rotodial" and the "Rotopoint," which embody an improved principle in design.



THE NEW DUDLEY LOCK

The two models have a larger number of dial figures which offer a variety of combination changes, making it impossible for anyone to solve the lock combination. In addition to being automatically self-locking, the lock contains a device which allows it to lock automatically and, at the same time, to disarrange the tumblers, without the necessity of spinning the knob or dial. The user is protected against his own carelessness and there is no clue to the last numeral on the combination.

Complete information and prices are available to any school official who will write to the Dudley Lock Company.

Glo-Coat for School Floors. S. C. Johnson & Son, Racine, Wis., manufacturers of floor finishes, have just announced a new Glo-Coat floor finish, a "no-buff" maintenance product for asphalt-base and rubber floors.

Glo-Coat floor finish requires no polishing or buffing, is easy to apply, dries quickly, and produces a smooth, transparent finish. Glo-Coat has a covering capacity of 1,500 to 2,000 sq. ft. to a gallon, and is suitable for use on varnished or painted floors, asphalt-base, and rubber floors. It produces a fine luster but does not injure the colors in floors. Complete information may be obtained upon request.

TRADE PUBLICATIONS

New Bausch & Lomb Optical Catalog. The Bausch & Lomb Optical Company, Rochester, New York, has just announced its latest catalog of scientific instruments, including lenses, prisms, and reflectors. The catalog contains tables of piano convex and double convex lenses, cylindrical lenses, crown glass wedge-type right-angle and equilateral prisms, parabolic reflectors, convex mirrors, and quartz optical parts.

A copy of the catalog will be sent to any school official who requests it.

New Sheldon Furniture Catalog. The E. H. Sheldon Company of Muskegon, Mich., has just issued its latest catalog of Sheldon furniture, comprising furniture for laboratory, home arts, educational, and industrial shop uses.

The catalog, in its fifteen sections, lists and describes laboratory and science tables, cases and cabinets, domestic-science and manual-training equipment, art and drawing furniture, commercial and classroom furniture, and library equipment. A feature of the catalog is the space devoted to a description and illustrations of the Sheldon attached swinging chair which is used in classrooms, laboratories, and lunchrooms.

A copy of the catalog will be sent to any school official upon request.

Efficient Lighting for Schools. The Holophane Company, 342 Madison Ave., New York City, in its most recent bulletin, *The Most Efficient Lighting for Schools*, offers some definite standards of illumination for educational institutions and presents some outstanding examples of Holophane lighting in various schools and colleges throughout the country.

The bulletin presents in a concise, comprehensible form, an outline of the most modern practice in the lighting of educational buildings, offers complete information as to the manner in which Holophane specifics meet these requirements, and in addition, a complete engineering tabulation covering all the areas of a school.

A copy of the bulletin will be sent to any architect, or school official who requests it.

PERSONAL NEWS

♦ Supt. V. L. Eikenberry, of Vincennes, Ind., has been elected president of the Indiana Town and City Superintendents' Association.

♦ Supt. A. J. Stoddard, of Providence, R. I., has been reëlected for a new three-year term, at an annual salary of $12,000.

It will stand a tug-of-war —try it.

Take a Nibroc Towel. Wet it across the middle. Hold one end of it firmly with two hands. Let a good stout "husky" hold the other end. Now—both pull! *Note its great strength!*

An Amazing New Idea in Paper Towels —WET STRENGTH

NIBROC TOWEL

"It has Great Wet Strength"

A SPECIAL Process, developed by Brown Company in their research laboratory, has created in Nibroc Towels *greater wet strength* and *quicker absorption* than ever before known in a paper towel.

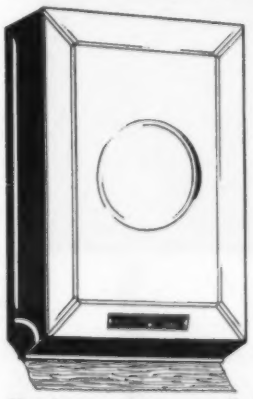
The user can now wipe his or her hands and face with perfect assurance that Nibroc Towels will not disintegrate when coming in contact with moisture, no matter how roughly they are used.

Nibroc also retains its softness, is good to even the most sensitive skin; free from lint or fuzz and exceptionally absorbent.

One Nibroc will do the work of two, three and sometimes four ordinary towels. Nibrocs are preferred by buyers as well as users.

Use Nibrocs for a more satisfactory and economical towel service.

ECONOMY
One case of Nibroc Towels will do the work of two or three and sometimes four cases of ordinary towels.



Handsome white enamelled cabinets are loaned to users. Hold three hundred Standard or four hundred Junior towels. Cabinet dimensions are 10¼" wide, 15" high, 3¼" deep.

BROWN Company
FOUNDED 1852
Portland, Maine

NEW YORK ST. LOUIS BOSTON SAN FRANCISCO CHICAGO MONTREAL PARIS

S. C. Johnson & Son
are pleased to announce

GLO·COAT

GLO·COAT
A NEW FLOOR FINISH
that dries quickly and shines as it dries
DIRECTIONS • Scrub floor thoroughly with soap and water and allow to dry completely before applying GLO-COAT. If floor has been waxed be sure to remove all wax before applying GLO-COAT. • Apply GLO-COAT with a clean soft cloth or a felt applier, spreading it over the surface in a thin, uniform film. • GLO-COAT will ordinarily dry in twenty minutes but atmospheric conditions may occasionally retard drying. Do not walk on the floor until it is dry. If a second coat is needed it may be applied immediately after the first coat dries. Although GLO-COAT shines as it dries and therefore needs no polishing, a dry buffing with an electric floor polisher will bring up lustre if traffic has dulled it. • If a floor becomes dirty between applications of GLO-COAT, clean by soap and water scrubbing before applying a new coat. To remove scuff marks or slight discoloration from dirt, floors treated with GLO-COAT may be wiped up at intervals with cold water.

A NEW
finish for rubber and asphalt-base floors
–that dries quickly and shines as it dries
–requires no polishing, no buffing

• This remarkable new product for use on asphalt-base and rubber floors has been perfected in the laboratories of S. C. Johnson & Son, Inc. after 3 years of experimentation and testing.

• We want you to try Glo-Coat. We recommend it enthusiastically knowing that you will find it the most satisfactory finish you have ever used for these surfaces, both as to ease of application, durability and lustre. It requires no buffing or polishing when applied.

LIBERAL FREE SAMPLE

Fill out and mail the coupon. You will receive without obligation a generous sample of Glo-Coat, including complete information about this remarkable new product.

S. C. JOHNSON & SON, Inc., Dept. SJ3, **RACINE, WIS.** Please send a liberal sample (free) of Glo-Coat for use on rubber and asphalt-base floors.

We have_____ (*amount*) sq. ft. of_____ (*name of mfr.*) rubber flooring,_____ (*amount*) sq. ft. of_____ (*name of mfr.*) asphalt-base flooring.

*Name*_____

*Address*_____ *City*_____

In these days of

Budget Slashing

why not begin with the

A COMPLETE SYSTEM

SCRUBBERS.

Nine models from which to choose . . . a wider choice than is available in any other line. The largest, a giant *Finnell* which will *scrub* a mammoth gymnasium or a block long corridor in a fraction of the time it would take to mop it by hand. Scrubs and picks up the water *in one operation*. The smallest *Finnell*, a handy machine that can be carried about in one hand. Will scrub or polish hard-to-get-at places, stairways, etc. A right size for every need.

POLISHERS.

Every *Finnell* is a polisher, as well as a scrubber. Rubs the wax in. Polishes off the surface—leaving a beautiful, slip-proof floor.

FINNELL-KOTE.

More than just a wax . . . a floor covering. When applied hot through the special *Finnell* dispenser, it clings to the porous surfaces of floor or floor coverings. Does not crack up under traffic. After several weeks of ordinary school wear the original *Finnell-Kote* will still be intact. Goes further, takes less time in maintenance, lasts longer. Comes in colors, also, if desired.

SOLAR-BRITE.

A liquid scrub soap—made of rich, undecomposed fats. Contains no alkali. Will not injure any floor.

FINOLA.

Known for 25 years. One of the original bulk scouring powders. Safe and efficient.

SOLAR SOAP POWDER.

For use wherever a good soap powder is needed.

FULFIL.

For filling floors—has penetrating and drying qualities. Applied hot, produces a sealing and water-proof surface when cool. Available in colors.

TERRAZZO FULFIL.

For filling terrazzo floors.

GYMFIL.

Special filler for gymnasium floors. You may have your preference—fast, medium or slow floors. Produces beautiful, delightful sheen; easy to sweep and clean. Seals and preserves the wood.

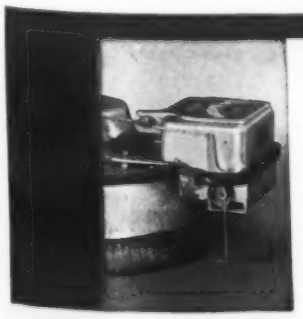
School floors *must be clean*. You cannot eliminate that fact. But you can *cut the cost* of cleaning them.

The *Finnell System* provides the means. It is the first practical system of scrubbing and polishing floors electrically. It has been tested for more than a quarter of a century. Today, it is more used in the schools of this country than any other mechanical floor maintenance system.

Every *Finnell* machine is designed to reduce labor, to shorten the time of cleaning and polishing, and, at the same time, to achieve greater floor cleanliness and floor beauty than can be obtained by hand methods.

"Our floors are in better condition than they have ever been" reports the principal of an Illinois High School. "Far superior to the old method of hand scrubbing" is the statement in a letter from a South Carolina college. "Less expensive . . . they save janitor's time" is the word from an Indiana public school system.

For refinishing old floors, for protecting new floors, for any floor maintenance problem, make use of the service rendered by our staff of floor experts. Ask for a *Finnell* man to call and inspect your floors and recommend proper procedure. This service costs you nothing. The cost of the plan recommended may be so low as to surprise you. Address FINNELL SYSTEM, INC., 803 East Street, Elkhart, Indiana.



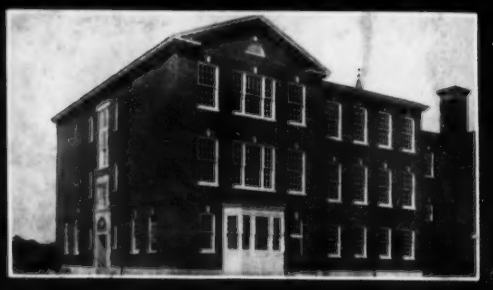
FINNELL SYSTEM

OF FLOOR MAINTENANCE

STANDARD SCHOOL EQUIPMENT

Recent Schools of A. L. HARRIS, Municipal Architect, Washington, D. C.

Equipped with AUSTRAL WINDOWS.



Ventilation Without Draft

AUSTRAL Ventilation is Health Ventilation. AUSTRAL WINDOWS are simple, economical, dependable, and their worth is most strongly evidenced in the long list of architects who are consistently endorsing them in their specifications.

The $4,000,000 school building programme in Washington calls for AUSTRAL WINDOWS. Washington joins with many other large cities in providing their schools with ideal methods for light and ventilation.

Both AUSTRAL WINDOWS — and AUSTRAL WARDROBES are — STANDARDS.

101 PARK AVE AUSTRAL WINDOW CO. NEW YORK CITY